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Index—California and Western Medicine, Volume 49
July to December, 1938

INDEX ARRANGEMENT

Sequence of Subheads in Index

This index is arranged under the following headings:

I. Authors.
II. Subjects—Titles of papers.
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Key to Abbreviations in This Index

Or.—Original Article.
C. R.—Case Report.
B. M.—Bedside Medicine.
Ed.—Editorial.
E. C.—Editorial Comment.
C. N.—Clinical Notes.
L. M. H.—Lure of Medical History.
Sup.—Supplement (by month).

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NEXT ANNUAL SESSIONS
American Medical Association, St. Louis, Mo. (dates to be announced later)
California Medical Association, Hotel Del Monte, May 1–4, 1939

CALIFORNIA
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Communications for the Public Relations Department should be addressed to the Director, George H. Kress, M. D., Room 2004, 450 Sutter Street, San Francisco.

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(Roster lists of officers of scientific section, component county societies, Woman's Auxiliary, A. M. A. delegates, special committees, etc., are continued on advertising pages 4 and 6.)

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Contra Costa County Medical Society
President, Selby H. Marks, Grabstein Bldg., Pittsburg.
Secretary, Thomas J. Dozier, 202 G Street, Antioch.
Meeting, *Second Tuesday, 8 p. m.*

Fresno County Medical Society
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Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

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Secretary, Lawrence A. Wing, Fifth and F Streets, Eureka.
Meeting, *First Thursday.*

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Secretary, William A. Clarke, Holtville.
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

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Secretary, C. S. Compton, 428 C Street, Bakersfield.
Meeting, *Third Thursday, 8:30 p. m.*

Kings County Medical Society
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Lassen-Plumas-Modoc County Medical Society
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Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

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Secretary, Carl W. Clark, 510 B Street, San Rafael.
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Secretary, Robert B. Smalley, Willits.
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Merced County Medical Society
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Meeting, *First Thursday.*

Napa County Medical Society
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Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

Orange County Medical Society
President, G. Wendell Olson, 211 No. Pomona St., Fullerton.
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Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital, Orange.*

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Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

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Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

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President, J. M. O'Donnell, Hollister.
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Meeting, *At Call of President.*

San Bernardino County Medical Society
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Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

San Diego County Medical Society
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, Bryant R. Simpson, 1205 Medico-Dental Building, San Diego.
Secretary, W. H. Newman, Medico-Dental Building, San Diego.
Meeting, *Second Tuesday, El Cortez Hotel.*

San Francisco County Medical Society
2180 Washington Street, San Francisco
President, William C. Voorsanger, 490 Post St., San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

San Joaquin County Medical Society
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Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.
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San Luis Obispo County Medical Society
President, Frederick R. Mugler, 1170 Marsh Street, San Luis Obispo.
Secretary, E. D. Anderson, 1120 Morro Street, San Luis Obispo.
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San Mateo County Medical Society
President, Hartzell H. Ray, 23 Second Avenue, San Mateo.
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

Santa Barbara County Medical Society
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Secretary, J. Jerome Rupp, 16 E. Junipero Street, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

Santa Clara County Medical Society
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Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

Santa Cruz County Medical Society
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Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

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Meeting, *Second Thursday.*

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Secretary, Hoyt R. Gant, 401 Beaty Building, Modesto.
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President, Donald E. Thompson, Red Bluff
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Meeting, *At Call of President.*

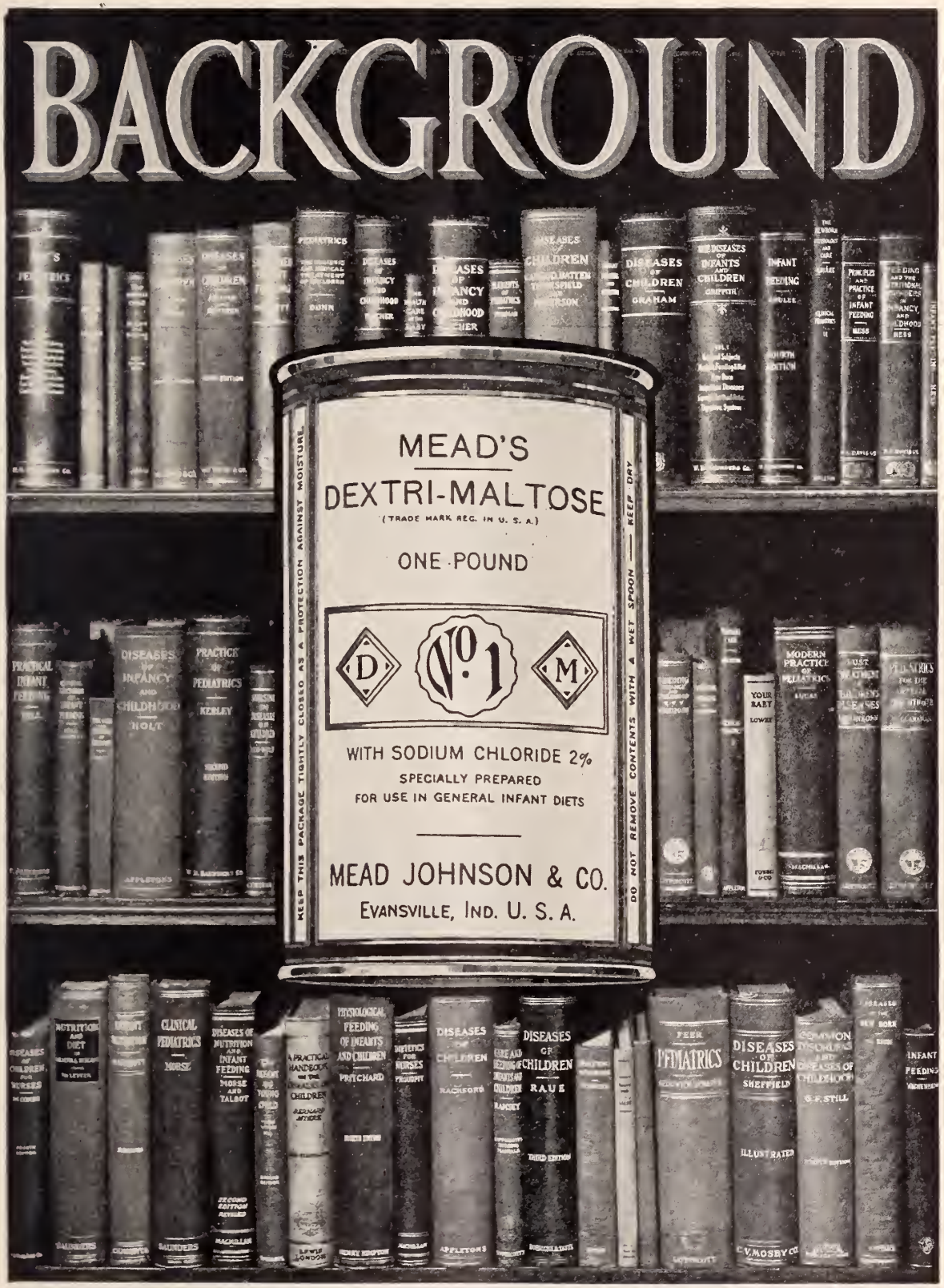
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Meeting, *Sunday Evening once a month.*

Ventura County Medical Society
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Secretary, A. A. Morrison, 625 Main Street, Santa Paula.
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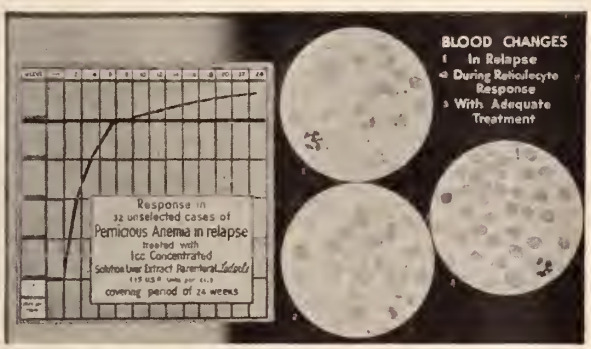
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"From the 19th of May, 1876, to July 1, 1877, there were 1,646 cases of smallpox reported at the health office. Of this number, 898 were sent to the Twenty-sixth Street Hospital. Of the whole number, 482 died—255 at the hospital and 227 in the city—the percentage of deaths at the hospital being 28.4; in the city, 28.9. It must be remembered, however, that among the deaths in the city are included sixty Chinamen, reported after death. Of the seventeen Chinamen who died at the hospital, a few were reported and the others discovered before death. As smallpox is much more fatal among children than adults, and as there are but few children among the Chinese, comparatively, the inference is natural and just that, in proportion to the number of cases, there were fewer deaths than among the whites. Certainly, there could not have been less than three hundred cases concealed by the Chinese, which, added to the entire number reported at the health office, would increase the total number of cases to 1,946, exceeding the number reported during the epidemic of 1868 and 1869 by thirty-seven. At that time the estimated Chinese population was only 4,000, and very few cases occurred among them. The cause and history of this epidemic is a matter of so much importance that I beg leave to reproduce and reiterate some of the views expressed by me in my report to the honorable board of health, September 12, 1876.

"On the 19th of May, 1876, the first case of smallpox was reported. Within a few days twelve other cases were reported in various portions of the city, occurring for the most part in respectable families, without any known exposure, and of a very severe type. Satisfied in my own mind that all unprotected persons in the city were liable to contract the disease by the same insidious and unknown cause that had stricken down the thirteen reported cases, I then stated to your honorable body that I believed we were in danger of an alarming epidemic, and advised the appointment of public vaccinators. The idea of an epidemic was so ridiculed by correspondents of the press and others, improper motives even being imputed to me for expressing, as health officer, my fear of such a contingency, that the people soon ceased to apply to the vaccinators in such numbers as to warrant a continuance of their commissions, and they were accordingly withdrawn in two weeks. In the meantime vaccination was continued at the health office daily, and up to the 1st of July about 8,000 persons had been vaccinated, under the auspices of this department. Even on the 1st of July it was generally denied to be epidemic, notwithstanding the fact that 139 cases had been reported, seventy-two of which had occurred in the last twelve days of June. From this time on the disease increased so rapidly that its existence as an epidemic soon became patent to all. Vaccinators were again appointed, and such was the eagerness for vaccination that it was impossible for a few days to obtain a sufficient quantity of pure virus to vaccinate all the applicants."

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1. "Treatment of Human Pellagra with Nicotinic Acid" — Fouts, Helmer, Lepovsky and Jukes; Proc. Soc. Exp. Biol. & Med.; 37:405: (Nov.) 1937.
2. "Relation of Nicotinic Acid and Nicotinic Acid Amide to 'Canine Blacktongue' " — Elvehjem, Madden, Strong and Wooley; Jrl. Amer. Chem. Soc. 59:1767: (Sept.) 1937.
3. "Therapeutic Administration of Nicotinic Acid, in Human Beings During Health and Disease," — Spies, Cooper and Blankenhorn. (Read before the Central Society for Clinical Research, Chicago — Nov. 1937 — To be published).
4. "Nicotinic Acid and the Pellagra Preventing ('P-P') Vitamin" — Harris; Chem. & Ind.; 56:1134: (Dec.) 1937.
5. "Pellagra Successfully Treated with Nicotinic Acid — A Case Report." — Smith, D. T., M.D.; Ruffin, Julian M., M.D.; and Smith; Susan Cower, M.A.; Jrl. A.M.A. 109:2054: (Dec. 18) 1937.
6. "Nicotinic Acid and Vitamin B_2" — Dann, W. J.; Science: 86:616: (Dec. 31) 1937.
7. "Pellagra and Nicotinic Acid" An editorial — Jrl. A.M.A. 110-289 (Jan. 22) 1938.
8. "Relation of Nicotinic Acid to Human Pellagra," an editorial, Jrl. A.M.A., 109:1203:1937 (Oct. 9).
9. "The Use of Nicotinic Acid in the Treatment of Pellagra,"— Spies, Cooper and Blankenhorn; Jrl. A.M.A. 110:622:1938 (Feb. 26).
10. "Advances in the Treatment of Pellagra." — Editorial, Annals of Internal Medicine 11:1760 (March) 1938.
11. "A Note on the Relationship of Porphyrinuria to Human Pellagra." Tom Douglas Spies, M.D., Yasuo Sasaki, Ph.D., and Esther Gross, M.S., Southern Medical Journal, Vol. 31, No. 5, May, 1938. Page 483.

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Two principles govern the moral and intellectual world. One is perpetual progress, the other the necessary limitations to that progress. If the former alone prevailed, there would be nothing steadfast and durable on earth, and the whole of social life would be the sport of winds and waves. If the latter had exclusive sway, or even if it obtained a mischievous preponderancy, everything would petrify or rot. The best ages of the world are those in which these two principles are the most equally balanced. In such ages every enlightened man ought to adopt both principles, and with one hand develop what he can, with the other restrain and uphold what he ought.—Gentz.

The most fruitful experience in life arises when the inquiring mind comes under the influence of the skillful teacher. Some day the student so blessed may look back with wondering gratitude upon the transforming hands once laid upon him.

Education in Health.—There is a renewed interest in health education in the schools and the importance of instruction in hygiene and allied subjects is recognized generally. Dr. J. Howard Beard of the University of Illinois has prescribed qualifications for teachers of hygiene in high schools that provide the essentials in training. They are:

1. A thorough background of the fundamental sciences of biology, chemistry, and physics.
2. Knowledge of physiology, bacteriology, psychology, sociology, and economics.
3. An understanding of the principles, psychology, and philosophy of education.
4. Thorough contact with proper facilities for instruction.
5. A fixed determination to keep up with the rapid progress and changes of preventive medicine and sanitary engineering, which make it possible for man to control his environment and adjust himself to it.

Dr. Beard adds:

"The teacher should not only be well trained, but should be interested in students, sympathetic with their problems, and be able to see in proper perspective the relation of hygiene to personal welfare and social progress. He should be emotionally mature and an example of health in the broad sense of living most and serving best. He should be able to deal with facts and reality with optimism and poise. His personality should be sufficiently dynamic to make his teaching effective and his character should be rich in courage, fairness, magnanimity, kindliness, and courtesy.

"The curricula of many colleges and universities offer the prospective teacher of hygiene an opportunity to get the background of science, pedagogy and education essential to teach health to high-school students who tomorrow will be determining the destiny of their communities. The demands of our complex society preclude the drafting of the poorly prepared pedagogic 'Jack of all trades' to teach a subject which is to provide individuals with knowledge essential to protect themselves, to safeguard their families and to function intelligently as citizens in the promotion of the general welfare."

Whenever any disease is so widespread in the population, so serious in its effects, so costly in its treatment that the individual, unaided, cannot deal with it himself, it becomes a public health problem.—Surgeon-General Thomas Parran in *The Health Officer.*

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BOOK REVIEWS

Books received for review are placed in the Library of the California Medical Association, in its central office at San Francisco. Book reviews are written by the Association Secretary.

BOOKS RECEIVED

Materia Medica Drug Administration and Prescription Writing. By Oscar W. Bethea, M. D., Ph. G., Ph. M., F. C. S., F. A. C. P., Professor of Clinical Medicine, Tulane School of Medicine; Professor of Therapeutics, Tulane Graduate School of Medicine; Senior Physician, Southern Baptist Hospital (New Orleans); Senior Visiting Physician, Charity Hospital of Louisiana; Member of Revision Committee, United States Pharmacopoeia, etc. Fifth Revised Edition. Cloth. Pp. 577. Price, $5. Philadelphia: F. A. Davis Company, 1938.

Injection Treatment of Varicose Veins and Hemorrhoids. By H. O. McPheeters, M. D., F. A. C. S., Formerly Director of the Varicose Vein and Ulcer Clinic, Minneapolis General Hospital; Attending Physician, New Asbury, Fairview and Northwestern Hospitals, Minneapolis, and James Kerr Anderson, M. D., F. A. C. S., Instructor in Surgery, University of Minnesota School of Medicine; Fellow, American Proctologic Society; Adjunct Surgeon, Minneapolis General Hospitals; Attending Surgeon, St. Marys, Abbott and Northwestern Hospitals, Minneapolis, Minnesota. Cloth. Pp. 315, illustrated with eighty-two halftones and line engravings. Price, $4.50. Philadelphia: F. A. Davis Company, 1938.

The New International Clinics. Original Contributions: Clinics; and Evaluated Reviews of Current Advances in the Medical Arts. Edited by George Morris Piersol, M. D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia. Volume 2, New Series One (old forty-eighth). Cloth. Pp. 315. Philadelphia: J. B. Lippincott, 1938.

The Romance of Proctology. Which is the story of the history and development of this much-neglected branch of surgery from its earliest times to the present day, including brief biographic sketches of those who were its pioneers. By Charles Elton Blanchard, M. D. Cloth. Pp. 284. Price, $4.50. Youngstown: Medical Success Press, 1938.

Medical State Board Questions and Answers. By R. Max Goepp, M. D., Formerly Professor of Clinical Medicine in the Graduate School of Medicine, University of Pennsylvania; Formerly Assistant Professor of Clinical Medicine, Jefferson Medical College; Formerly Assistant Visiting Physician, Philadelphia General Hospital; Formerly Professor of Medicine, Woman's Medical College of Pennsylvania. Seventh Edition, Revised. Cloth. Pp. 644. Price, $5.50 net. Philadelphia: W. B. Saunders Company, 1938.

New and Nonofficial Remedies, 1938. Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1938. Cloth. Pp. 657. Chicago: American Medical Association, 1938.

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1937, with the Comments That Have Appeared in the Journal. Cloth. Pp. 201. Chicago: American Medical Association, 1938.

A Synopsis of the Diagnosis of the Acute Surgical Diseases of the Abdomen. By John A. Hardy, B. Sc., M. D., F. A. C. S., El Paso, Texas. Cloth. Pp. 345, with ninety-two illustrations. Price, $4.50. St. Louis: The C. V. Mosby Company, 1938.

BOOK REVIEWS

Annual Reprint of the Reports of the Council on Pharmacy and Chemistry of the American Medical Association for 1937, with the Comments That Have Appeared in *The Journal*. Cloth. Price, $1. Pp. 201. Chicago: American Medical Association.

This book is a great deal more than a mere record of the negative actions of the Council on Pharmacy and Chemistry. It gives in full the reasons for the Council's rejection

(Continued on Page 15)



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Glaister: Medical Jurisprudence and Toxicology $8.00
Parker: Methods of Tissue Culture 5.00
Russell: Occupational Treatment of Mental Illness 2.50
Wiltsie: Chronic Intestinal Toxemia and its Treatment 3.00
Winternitz: Biology of Arteriosclerosis 4.00

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BOOK REVIEWS

(Continued from Page 13)

of various preparations, but it also records results of the Council's investigations of new medicinal agents not yet out of the experimental stage, and frequently contains reports on general questions concerned with the advance of rational drug therapy. All three categories of reports are represented in the present volume.

This issue of the Reports is remarkable for the series of valuable status and preliminary reports published by the Council in the past year. These include the reports on avertin with amylene hydrate (now accepted for New and Nonofficial Remedies), benzedrin sulfate (the active constituent of the notorious "pep" pills, but a promising drug when its limitations are recognized), catgut sutures (a survey of the sterility of the market supply), evipal soluble (a comprehensive review of the evidence for the usefulness and limitations of the drug), histidin hydrochlorid (a study of the usefulness of the drug in peptic ulcer, to be considered in connection with the report rejecting larostidin, a proprietary brand, for unwarranted and exaggerated claims), mandelic acid (an authoritative statement of the limitations of this drug which the Council has now accepted), and vinethene (a careful study of the evidence for the drug, which the Council has accepted for one year as an anesthetic to be used in short procedures).

Other notable reports of outright rejection of products are those on Causalin (Causyth), an unsafe and dangerous preparation proposed for use in arthritis; Glutamic Acid Hydrochlorid (Calco), proposed as a conveyor of hydrochloric acid, with unsubstantiated claims of clinical effectiveness; Larodon "Roche," proposed as a substitute for other well-established analgesic and antipyretic drugs and marketed with exaggerated and unwarranted claims.

Two reports on sulfanilamid appear, a nomenclature and status report, together with reprints of *The Journal* editorials, giving the warnings which, if obeyed, would have avoided the series of deaths which resulted from the marketing of the ill-fated Elixir of Sulfanilamid (Massengill).

At the end of this volume appears an eulogy of George Henry Simmons, whose death deprived the Council on Pharmacy and Chemistry of its founder and American medicine of a worthy and faithful servant.

New and Nonofficial Remedies, 1938. Containing Descriptions of the Articles Which Stand Accepted by the Council on Pharmacy and Chemistry of the American Medical Association on January 1, 1938. Cloth. Price, $1.50. Pp. 592. Vol. 66. Chicago: American Medical Association, 1938.

In this book the Council on Pharmacy and Chemistry lists and describes the medicinal preparations that it has found acceptable for general use by the medical profession. A glance at the list of the Council members and the long list of consultants appearing in the first part of the book gives ample warrant for the authority of the Council's selections.

New substances described in this volume are sulfanilamid and protamin zinc insulin, with the accepted brands. The proved value of these new additions to the physician's armamentarium bids fair to make the past year a milestone in therapeutic progress. The Council is to be congratulated on the promptness with which it evaluated these drugs and established standards for their adequate control. From the first the Council warned against using sulfanilamid in untried combinations. The sad tragedy of the deaths from the rashly introduced Elixir of Sulfanilamid (Massengill) starkly emphasizes the value of such a body as the Council to the medical profession and the pharmaceutical manufacturers as well as to the public. Of course this potential value cannot become effective as long as those concerned refuse to follow the Council in the use of new remedies.

Other noteworthy new drugs which appear in New and Nonofficial Remedies, 1938, are avertin with amylene hydrate, vinethene, pontocain hydrochlorid, basal, general and local anesthetics, respectively; novatropin and syntropan, synthetic mydriatics.

Physicians who wish to know why a given proprietary is not described in New and Nonofficial Remedies will find the "Bibliographical Index to Proprietary and Unofficial Articles Not Included in New and Nonofficial Remedies" of much value. In this section (in the back of the book) are given references to published articles dealing with preparations that have not been accepted. These include references to the Reports of the Council, to Reports of the American Medical Association Chemical Laboratory, and to articles that have appeared in *The Journal.*



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PROGNOSIS: Usually curable in early stages; if neglected, is progressive and becomes chronic and incurable.

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TWENTY-FIVE YEARS AGO

(Continued from Text Page 104)

$50,000 a year at present. None of the income is to be used for building purposes. . . .

From an Article on "Evolution in the Study of the Heart: A Survey" by Harry I. Wiehl, M. D., San Francisco.—Privilege indeed it is to live in a renaissance period. When we stop to consider how for centuries medicine has stood ineffectual in the face of the morbid heart, groping here and there for light in the midst of darkest ignorance and unable to attain any efficiency in this field, it is a great satisfaction to know that our own times have finally opened up new paths to knowledge and treatment of chronic heart disease. . . .

From an Article on "Stereoroentgenography in Pulmonary Tuberculosis": A Clinical and Anatomical Study by Walter W. Boardman, M. D., San Francisco.—The question of the value of radiographic examination in the diagnosis of pulmonary tuberculosis is one which has called forth widely varying opinions. To investigate this question a complete stereoroentgenographic apparatus was installed in the Phipps Dispensary of the Johns Hopkins Hospital, and arrangements made for the study of a large series of cases, the radiographic findings being checked by careful clinical and, when possible, by autopsy examination, the work being carried on by Doctors Dunham, Wolman, and myself. . . .

From an Article on "Two Cases of Cerebellar Disease Followed by Autopsy" by Walter F. Schaller, M. D., San Francisco.—I wish to present the history of two cases of cerebellar disease, both of which came to autopsy. They represent two different types in their symptomatology: one was of sudden onset with no tendency toward a progressive course and with no evidence of intracranial pressure, while the other came on slowly and progressively with marked signs of intracranial pressure. In these two cases I wish to lay special stress on the analysis of the character of the ataxia. . . .

From an Article on "Factors in the Physiology of Bone in Relation to Surgery" by Arthur L. Fisher, M. D., San Francisco.—My reason for presenting this paper at this time, is that it seemed to me, from the discussions following Doctor Sherman's paper at the last meeting of this section, that there was not a very definite understanding among those who are operating on bone as to what happens or may happen after the operation. . . .

From an Article "On the Differential Diagnosis of Appendicitis and Nephrolithiasis" by M. Krotoszyner, M. D., San Francisco.—Attempts to recognize and remove concrements of the upper urinary tract date back to the dawn of medical history at the times of Hippocrates, when perforated calculi were extracted or paranephritic abscesses were successfully emptied by incision. The treatment of nephrolithiasis, of course, became a rational and scientific procedure only since Simon, in 1871, paved the surgical road to exposure of the kidney. . . .

From an Article on "The Skin Reaction After Cowpox Vaccination: A Possible Aid in Public Health Administration" by John Nivison Force, M. D., Berkeley.—During the course of an antivaccination meeting held in Berkeley recently, the principal speaker of the evening issued a challenge for any person present to define successful vaccination.

The antivaccinationist, firm in the conviction that the medical profession still holds unchanged the hypothesis of

(Continued on Page 18)

BASIC OPERATIONS IN COMMERCIAL CANNING PROCEDURES

V. HEAT PROCESSING THE SEALED CONTAINER

● Previously, we have described how raw food material is sealed in the tin container after proper preparatory treatment. After sealing, the next important step in commercial canning is the heat process, or "process" as it is called in the industry.

Essentially, the processing operation involves exposure of the sealed container to hot or boiling water, or to steam under pressure, for the correct period of time. The purpose of the process is to destroy pathogenic or spoilage organisms which may be present on raw food material; the seal on the can then prevents re-infection of the foods by such organisms. Thus, the sealing and processing operations combine to insure a sound, wholesome canned product.

It is not possible here to review all factors which must be considered in the establishment of an adequate heat process for any specific product. Such factors have been briefly discussed in recent publications (1, 2). It must suffice to state that, in general, commercial processing operations are divided into two general types, depending upon the acidity of the food being canned.

The "acid" foods—including the common fruits and certain vegetables or vegetable products whose pH values fall below 4.5—are quite easily heat processed. With such foods it is only necessary to heat the sealed container long enough to permit the attainment of a definite temperature in the center of the can (usually 200°F. or slightly less). In fact, some acid products may be processed by filling sufficiently hot, sealing and inverting the cans, and cooling without further process.

The "non-acid" foods—such as meat, sea foods, milk and most of the common vegetables—require temperatures above that of boiling water for adequate heat processing. Such foods are processed under steam pressure in a closed "retort", usually at a temperature of 240°F. Years of research have made possible the issuance for the guidance of modern canners of a bulletin listing recommended process schedules for the non-acid products (3).

Regardless of the temperature of processing, equipment is available which permits use of the batch or "still" process, and the "continuous" or "agitating" types of process for sealed cans. Improvements in processing machinery and accessory instruments during the past two decades permit precise, scientific control of commercial processing operations.

Above all, however, the modern canner has a clear understanding of the underlying purpose of the process and a deep appreciation of the necessity for strict supervision of the processing operation. Commercially canned foods, consequently, must be ranked today among the most wholesome foods coming to the American table.

AMERICAN CAN COMPANY

230 Park Avenue, New York, N.Y.

(1) 1938 Food Research 3, 13. (2) 1937. J. Amer. Med. Assn. 109, 1046. (3) 1937. Natl. Canners Assn. Bull. 26L, 3rd ed.

This is the thirty-eighth in a series of monthly articles, which summarize, for your convenience, the conclusions about canned foods reached by authorities is nutritional research. We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.



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TWENTY-FIVE YEARS AGO

(Continued from Page 16)

Jener, must of necessity find many weak points in the definition laid down in the present vaccination act. . . .

From "No Medical Schools."—The whole purpose of modern medical requirements is simply to demand that those who wish to practice the healing art shall be sufficiently trained in the fundamental sciences. Homeopaths are so trained and the graduates of their schools are able to pass an examination on these sciences. There is nothing in the Medical Practice Act to interfere with an educated man of the homeopathic or any other school. The incidental fact that when physicians are educated they practice all very much the same sort of medicine, and that the schools disappear, is not the fault of the law, and is not regarded by any educated man as a fault.—*Fresno Republican.*

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 104)

"Operation of an alleged 'medical clinic' swindle in which physicians, business men, lawyers and Hollywood writers were victimized, was disclosed today by Deputy District Attorney J. Miller Leavy. Leavy made the disclosures as he issued complaints of forgery and petty theft against James E. Walsh, thirty-five, a salesman, who gave his address as 2307 Vacanta Way. In the forgery complaint Walsh is accused of forging the name of Howard Hughes, film producer and record speed flier, to a check for $3,881 that Walsh reportedly used in assertedly obtaining money. Leavy stated that Walsh, by telling physicians Hughes wanted them to head the clinic, obtained various sums of money. It is charged he received $60 from Dr. W. Dooley, 609 South Grand Avenue; $35 from Dr. B. E. Grant, 6777 Hollywood Boulevard, and $10 from Dr. T. N. O'Neil of 1930 Wilshire Boulevard. He also is charged with getting $35 from T. P. Fithian, a writer. . . ." (Los Angeles *Herald-Express,* May 16, 1938.)

"Dr. Carlos Thomaine, formerly of San Bernardino, was under arrest in Riverside yesterday on a charge of having illegally accepted nearly $800 relief money as an unemployable indigent." (San Bernardino *Sun,* May 18, 1938.) No one by the name of Dr. Carlos Thomaine appears in the records of the Board of Medical Examiners nor is his name listed in the 1936 American Medical Association directory.

"For lack of sufficient evidence, the case against Inez Brown and Margie Silver, charged with performing abortions, was dismissed today by Municipal Judge Theresa Meikle. The women had been arrested and held on $500 bail after police raided a place at 327 Fillmore Street and reported they found nine women there, besides the Brown and Silver women. Two of the women, the officers testified, admitted they were there for illegal operations, but they gave false addresses and could not be found to testify in court. All other evidence, Judge Meikle ruled, was hearsay." (San Francisco *Call-Bulletin,* May 31, 1938.) (Previous entry, June, 1938.)

"Laura M. Bedwell, drugless practitioner, was arrested in her offices at Oceanside yesterday on a charge that she had performed an illegal operation on Shirley Hanf last February 17. Formal complaint was made after the young woman and friends had provided the district attorney's office with statements and considerable documentary evidence, it was stated." (San Diego *Union,* May 17, 1938.) The records of the Board of Medical Examiners do not show L. M. Bedwell as the holder of a Drugless Practitioner license.

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"Arthur Carl Erikson, thirty-six, came to his death in an automobile 'accident due to negligence on the part of Dr. Harvey Smith.' That verdict of a coroner's jury was entered into the records of the coroner's office today following an inquest yesterday afternoon in Pasadena. Doctor Smith, a Hollywood physician and resident of the Flintridge district, is at liberty under $1,000 bail for appearance in court tomorrow morning to plead to a charge of driving while intoxicated and being involved in an accident resulting in injury. . . . Erikson was fatally injured in an automobile crash on Sunday morning at Russell and Chevy Chase. The coroner's jury recommended that the driving license of Doctor Smith, who police said was on probation in a prior drunk-driving conviction, be revoked." (Glendale *News-Press,* May 25, 1938.)

"The board of directors of the Ahwahnee Sanitarium on Saturday removed Dr. Robert E. (V.) Baker as medical director of the institution because he was not satisfactory to the directors. . . . Doctor Baker, formerly attached to the staff of the Olive View Sanitarium at Los Angeles, was named medical director in February to succeed Dr. John Weber, who was relieved of the post at that time. . . ." (Mariposa *Miner,* May 19, 1938.) (Previous entries, August and November, 1934; August, 1935; December, 1936; February, March, and July, 1937.)

"Denied a new trial after conviction on conspiracy to defraud and grand theft charges, Dr. E. H. Anthony was sentenced to San Quentin prison yesterday. Superior Judge Charles W. Fricke granted Doctor Anthony a new trial, however, on his conviction of two charges of solicitation of the commission of a crime, but these counts were taken off the calendar pending appeal. Under the sentence given yesterday, Doctor Anthony faces one to ten years in prison. Judge Fricke ordered the terms to run concurrently." (Los Angeles *Examiner,* May 27, 1937.) (Previous entries, January, 1935; February and March, 1937; April, 1938.)

"Dr. Romney M. Ritchey, psychiatrist, today succeeded Dr. George Hess as chief of the medical staff on Alcatraz Island, it was announced, following Hess' transfer to the new federal prison on Terminal Island near Los Angeles. . . . Doctor Ritchey has served in the United States public health service and the federal penitentiary at McNeil's Island." (Oakland *Post-Enquirer,* June 3, 1938.)

"New Dealers are getting ready for high combat with the organized medical profession on health insurance. The fight already has broken out in the capital, where the Home Owners' Loan Corporation is operating a group health insurance plan for federal employees. But the social welfare group in the administration expects the local fight to size up as just a preliminary skirmish after a national health insurance plan is proposed. . . . Dr. Isidor S. Falk, a member of the Social Security Board's research staff, is studying the national health problem with a view to helping the Board decide whether it should recommend health insurance legislation. . . . The HOLC plan, under fire from both the American Medical Association and the District of Columbia Medical Society, provides one of the simplest types of health insurance. . . . The legality of the HOLC plan now is being tested in the courts. New Dealers point to the Capper health insurance bill, pending in the Senate, as a hint to the form a federal program might take. Drafted by Abraham Epstein, head of the American Association for Social Security, the Capper Bill would provide not only medical care for the sick, but also cash benefits for those out of work because of sickness." (Press dispatch dated Washington, May 31, and printed in the San Jose *Mercury-Herald,* June 1, 1938.)

"Not only must a doctor pass an examination before he can practice medicine; he must continue to maintain a high professional standard or his license will be taken away from him. Dr. (Russell) Craft was a medical examiner

(Continued on Next Page)

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for the United States Veterans' Bureau. He was convicted of the crime of presenting for payment false, fictitious and fraudulent claims with the intent to cheat the United States Government, and was sentenced to prison for a year and a day. Because of his conviction of this felony the state of Idaho revoked his license as a physician. . . ." (Santa Cruz *Sentinel*, June 1, 1938.) (Previous entry, December, 1932; July and November, 1935.)

Men of Medicine: 1938.—How can all the nation receive adequate medical care; doctors adequate pay?

This problem, which has. in the last year, precipitated a controversy between medical men and made headline news of coöperative medicine, group practice, group hospitalization and "socialized" medicine as remedial measures is treated in "Men of Medicine: 1938," to which March of Time this month devotes its entire issue.

"Men of Medicine: 1938" is a film narrative on medical science's campaign to eradicate the scourges which still take an inestimable toll yearly. It explains in detail the revolutionization of medical practice by the discovery and utilization of anesthesia, aseptic surgery, bacteriology and radiography, and demonstrates the benefits of surgery by recording on film the detailed preparation for an operation and its actual execution.

Also shown in the film are the advances of preventive medicine and the perfection of medical equipment, which modern medicine has at its command today. The utilization of vaccines, antitoxins, adrenalin, thyroxin, pituitrin, and insulin are recorded; and the purpose of the basal metabolism machine, the hydrotherapeutic bath, the artificial fever machine, the iron lung, are shown on the screen as an actual and living record of medicine's fight to ease suffering and prolong human life.

Against a background of these advancements of medical science, the film studies the nation's health problem. Dr. Thomas Parran, Jr., Surgeon-General of the United States, puts the problem succinctly in the film: "Our first need is to join in a nation-wide effort against those causes of disease and death for which we have scientific weapons of unquestioned power. Syphilis, tuberculosis, cancer, pneumonia, and maternal and infant mortality are examples. To help doctors who are fighting against tremendous odds in remote rural areas we need five hundred new hospitals. The underprivileged third of our population when seriously ill needs help from tax funds."

The American Medical Association, the United States Public Health Service coöperated in the making of "Men of Medicine: 1938." March of Time also had the help and advice of individuals and groups in the medical profession. Its characters are actual doctors and their patients, and it brings to the screen for the first time a record of actual work in surgery and general practice.

Last year, March of Time produced two eight-minute medical studies: "Conquering Cancer," for which it received the Clement Cleveland Award for "carrying the most poignant message of cancer control to the largest number of people," and "The Human Heart," treating newly discovered causes of heart disease and science's advancement in its control. "Men of Medicine: 1938" is its first full twenty-minute film discussion of a great medical and social problem.



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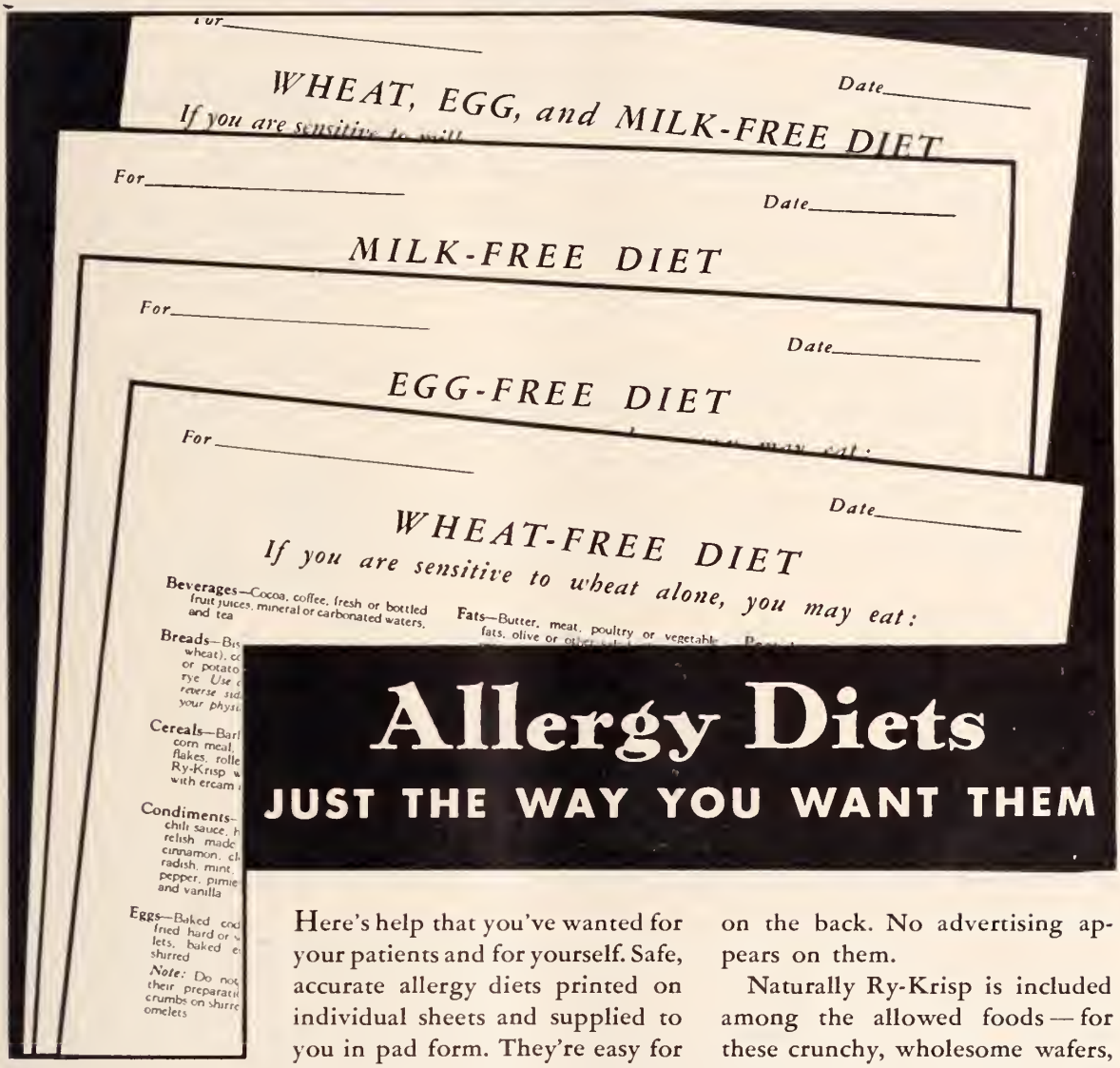
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When the health of the people made a question of public and not of party policy, only a skilled expert could possibly be appointed as a public health officer, not as is now so often the case, the man with the political pull.—Sir William Osler.

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* * *

Dr. S. C., male, age 58 years. Occupation: Veterinary surgeon, Altadena.

Examined a dog on July 19, 1937, thought to be suffering from arsenic poisoning, and while administering medicine he was bitten on the thumb of one hand. Later in the day treatment was again administered and the veterinarian was severely bitten on the other thumb. Both thumbs had been bitten by the same dog on the same day, and both bites involved puncture wounds through the thumb nails. Iodin was applied in the afternoon of July 19. The wounds were cauterized with nitric acid on July 20. Thumb nails not removed. The dog died on July 20, and laboratory examination established the diagnosis of rabies. Antirabic treatments were started on July 20. Treatments (fourteen doses) completed. Numbness and tingling of right hand developed on October 11. Admitted to hospital on October 14. The patient died on October 18. Autopsy on October 19 and smears of brain tissue revealed presence of Negri bodies.

R. H., male, age 28 years. Occupation: Mail carrier, San Gabriel.

Bitten by a stray dog on the lower leg above the ankle some time between October 21 and 27, 1937. Iodin was applied, and little thought was given to the incident. Nothing further known about the dog. Antirabic treatment not received by the patient. Numbness and pain developed in hands, arms, feet, and legs on November 26. Admitted to hospital on December 2. The patient died on December 3. Autopsy, December 3—Brain tissue shipped to State Bacteriological Laboratory and to the Hooper Foundation. Tissue inoculated into mice on December 6 produced rabies in eleven days at both laboratories, confirmed by finding Negri bodies in the brain.

* * *

S. H. W., male, age 57 years. Occupation: Laborer, Los Angeles City.

Bitten, approximately, on February 27, 1938, on the second finger of the right hand. The history is vague, as no importance was apparently attached to the incident. No cautery and no antirabic treatment. A known rabid spaniel was known to have been at large in the neighborhood where this man was bitten. Onset of symptoms, March 10. The patient died on March 12. Negri bodies found in the brain.

* * *

R. B., male, age 50 years. Occupation: Canvasser, Los Angeles City.

Badly bitten on the lower lip about six weeks prior to onset. While under the influence of liquor he had stopped to pet a sick dog. Nothing further known of the dog. No cautery and no antirabic treatment. Onset of symptoms, March 15. The patient died on March 25. Negri bodies found in the brain.

* * *

A. S., male, age 39 years. Occupation: Dairyman, near Lemoore, Kings County.

On March 17, 1938, the patient attempted to treat a sick cow and put his hand down into the animal's mouth, grab-



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bing the tongue. In doing so he abraded the knuckles of his hand on the cow's teeth. The cow died, and the brain was reported positive for rabies by the State Laboratory. No cautery, but antirabic treatment was started on March 19 and completed on March 30. Onset of symptoms, March 29—the day before he received his last antirabic treatment. The patient died on April 3.

This was the paralytic type of rabies, and the report of rabies from the pathologist was the basis of diagnosis. The attending physicians stated that, clinically, the case appeared to be poliomyelitis.

What Midwestern Small City Families Spend for Medical Care.—Midwestern small city families are more likely to economize by not seeing the dentist, the oculist—or even the doctor—than by not buying supplies for the family medicine chest when funds run low. This tendency is indicated in a table of medical expenditures for 3,118 native white nonrelief families living in seven representative cities in five Middle Western States. The table is a part of a nation-wide study of how much money the American family makes and how it is spent, conducted under the direction of Dr. Louise Stanley, Chief of the Bureau of Home Economics. The cities studied were Lincoln, Illinois; Boone, Iowa; Columbia and Moberly, Missouri; Mount Vernon and New Philadelphia, Ohio; and Beaver Dam, Wisconsin.

Low-income families consult dentists less frequently than doctors, and visits to the oculist usually are omitted entirely. But a majority of families at all income levels (67 to 92 per cent) reported expenditures for medicines and drugs during the twelve-month period studied in 1935–1936. Amounts spent for medicine, however, were not high, averaging $6 to $21 per family per year at the different income levels. Averages were based on all families, including those that made no purchases for the medicine chest.

Income for the year reached the $500 level before as many as half the families reported expenditures for a physician. Incomes of nearly three times this amount ($1,250 to $1,499) were reached before as many as half the families had any expense for the dentist during the year. Even at the $4,000 to $4,999 level only one family in four paid an oculist fee.

Fewer than 40 per cent of the families in the lowest income class studied ($250 to $499) spent money for doctors' fees during the year; fewer than 12 per cent spent for dentists' services; and none of these families incurred any expense at all for an oculist. However, 67 per cent bought some medicine.

Approximately half the families in the second lowest income class studied ($500 to $750) had expense for the physician; one in four, for the dentist; and practically none—less than half of one per cent—for the oculist. Three families out of every four bought some medicine-chest supplies.

Nearly all families of income levels above $500 (90 to 99 per cent) had some expenditure for medical care during the year. But even at the highest income level studied ($5,000 to $10,000) only three families in four reported expense for a physician; four families in five reported expense for a dentist; and fewer than one in four for an oculist.

"It is evident that a majority of families with very low incomes did not have periodic physical examinations by a doctor and did not have the condition of their teeth checked regularly by a dentist," says Doctor Stanley. "Average amounts spent for medical care in low income groups were not sufficient to pay for such routine services for all family members, even if the costs of serious illnesses had not been added in many instances. Since it is likely that families with low incomes need even more medical care than those that are well-to-do, these figures seem to indicate inadequate health measures. They support the contention of many social workers and others, that society should help provide adequate medical care for those who cannot pay the cost."

A comparatively small number of families ranging from 5 per cent in the lowest income class to 24 per cent in the highest, incurred bills for hospitalization. Although the percentage of families having such expenses increased with

(Continued on Next Page)

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(Continued from Preceding Page)

income, families with the very least to spend were not exempt. Expenditures for hospitalization ranged from an average of $3 per family in one of the lowest income classes to $21 in the next to highest. The number of families that paid health and accident insurance premiums was approximately twice as large as the number that paid hospital bills.

In one income class, $2,250 to $2,499, almost half (47 per cent) of the families paid on health and accident policies. The percentage of families making such payments ranged from 12 in the lowest class to 44 in the highest. These premiums took an average of $2 per family in the lowest income class studied ($250 to $500), and $27 in the highest. Averages were based on all families, whether or not they had any expenditures.

Wide differences in average amounts spent for medical care at the different income levels are noted. Families receiving between $250 and $500 spent an average of $28 for the year—a little more than $2 a month—while those with incomes of $5,000 to $10,000 reported expenditures averaging $184—a little more than $15 a month. Expenditures were averaged for all families.

Average amounts paid to the oculist ranged from less than fifty cents for the income bracket $750 to $999, to $4 per family for the year in two of the higher brackets. Not until incomes were $2,500 did the average amount spent per family for the year exceed $1. Families in the $250 to $499 income class had no expense for an oculist's services.

A few illustrations of family medical care spending at various income levels follow:

Of the families studied, 467 had incomes between $1,000 and $1,250. This income group averaged spending $47 during the year for medical care, apportioned as follows: physician, $14; dentist, $6; oculist, $1; medicine and drugs, $6; hospitalization, $5; health and accident insurance premiums, $6; and all other items including other specialists, clinic visits, nursing service, etc., $9.

In the income band $2,000 to $2,249, 215 families coöperated in the study. They spent an average of $77 for medical care, classified as follows: physician, $20; dentist, $11; oculist, $1; medicine and drugs, $8; hospitalization, $8; health and accident insurance, $16; and other items, $13.

Two hundred and one families with incomes between $3,000 and $4,000 reported expenditures averaging $114 for medical care—$23 for the physician; $20 for the dentist; $2 for the oculist; $14 for drugs and medicines; $17 for hospitalization; $21 for health and accident insurance; and $17 for other items.

Families with incomes between $5,000 and $10,000 reported expenditures averaging $184 during the year, divided as follows: $32 to the physician; $26 to the dentist; $3 to the oculist; $21 to the druggist; $15 to the hospital; $27 to the health and accident insurance company; and $60 for the other items.

Only expenditures of nonrelief white families that included husband and wife, both born in this country, were analyzed for this report from the Study of Consumer Purchases, a Works Progress Administration project, conducted by the Bureau of Home Economics of the United States Department of Agriculture in coöperation with the Bureau of Labor Statistics of the United States Department of Labor, the National Resources Committee, and the Central Statistical Board.

Child Hygiene Distributes New Films.—The following new 16-millimeter silent films are available through the Bureau of Child Hygiene, 305 State Building, San Francisco. The only cost is that of return transportation. Requests for this loan service should be filed two weeks in advance.

The Feet—One-reel film.

Shows details of structure and arrangement of the arches; the best mechanical use of the foot; the points of a good shoe, and harmful effect of improper shoes; good feet as an asset.

Food and Growth—One-reel film.

A feeding experiment with white rats, actually carried on in a classroom, demonstrates the food value of milk as compared with coffee and candy. The system of feeding, cleaning of cages, and charting of growth records are given in detail.

Posture—One-reel film.

Good posture, both standing and sitting; the part played by the muscles in determining whether it shall be good or bad; how to correct poor posture; and the importance of good posture in physical well-being.

Teeth—How Teeth Grow—One-reel film.

The order of formation and eruption of the temporary and permanent teeth is demonstrated by animation, models, and subjects of various ages.

Around the Clock with Your Baby and You—Three-reel film.

Shows the care of a young baby. Four-hour schedule indicated by clock. Technique of breast feeding, with care of the nipples; manual expression of milk; the baby's bath; sunbathing; outdoor sleeping. Mother's rest period during the day and period of health supervision by the doctor. The third reel shows preparation of the formula with both fresh and canned milk. Care of nipples, bottles, etc.

From Morning Until Night—Two-reel film.

Depicts care of a six-month-old baby, featuring a table-bath, preparation of pureed vegetables, feeding, training, play, sunbath, sleep, and routine health examination by the family physician.

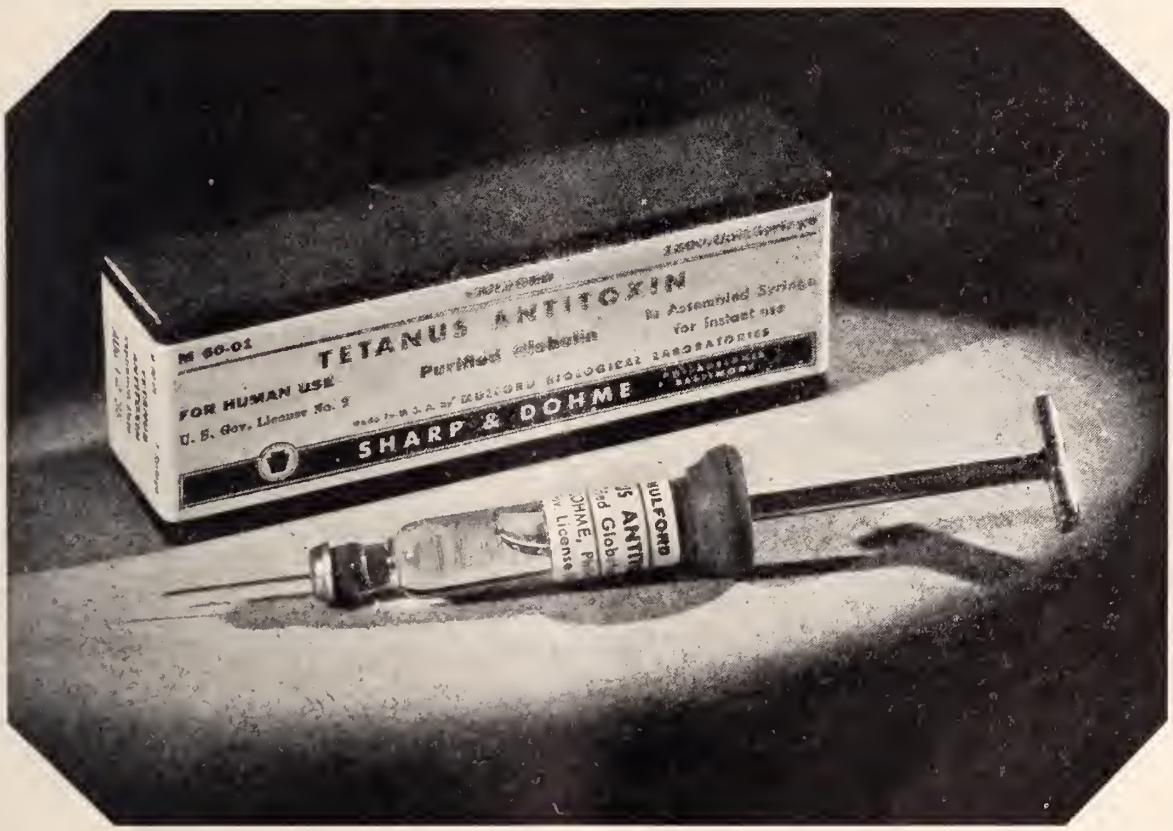
Prenatal Care—One-reel film.

The Road to Health and Happiness—One-reel film.

General child hygiene film, with emphasis on dental care. Diet, rest, sunshine, and mental hygiene through family activities.

There is a budget which we pay with frightful regularity; it is that of unnecessary disease and premature death.—Irving Fisher.

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Tetanus Antitoxin Purified Globulin, Mulford, is supplied in syringes or vials of 1,500 and 5,000 units; in syringes of 10,000 and 20,000 units. Tetanus Gas-Gangrene Antitoxin Mixed, Mulford, is supplied in syringes or ampoule-vials containing 1,500 units Tetanus Antitoxin, 2,000 units Perfringens Antitoxin, 2,000 units Vibrion Septique Antitoxin.

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I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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The Doctor's Puritanical State of Mind.—Many years ago Osler, speaking to the Medical Society of London, said: "But I see an incredulous look on some faces and I hear the whispered comment, ''tis heard often enough! 'Where is all this syphilis? It does not come my way!' Yes, it does. The syphilis we see but do not recognize everywhere awaits diagnosis, so protean are its manifestations."

"Too many doctors still believe that nobody has syphilis except negroes, prostitutes, and criminals. Their own patients, failing to fall into one of these classes, are too well born, too moral, too well educated, too well-to-do to be infected. Too many doctors, surprising as it seems, still think of syphilis as a disgrace, not as a disease, and hesitate to suggest the necessary steps for diagnosis lest the patient's feelings be wounded. Too many, even if they do recognize syphilis, still think of it as well-earned punishment for sin, and do less than their part in administering or arranging for proper treatment.

"Such statements as '10 per cent of the adult population is infected' fall on uncomprehending ears, and are as difficult to interpret in terms of personal experience as the billions of the national debt. Even if the facts of 500,000 fresh infections each year and a total of some 10,000,000 syphilitic adults in the country are accepted, there is no appreciation of the fact that all social classes, not only the lowest, are to some extent involved.

"These two reasons combine to produce in the minds of many physicians what Stokes so neatly calls 'a low index of suspicion.' The possibility of syphilis is dismissed as incredible. That syphilis can occur in the clientele of the family doctor who has known his patients for a lifetime, is beyond belief. It is, likewise, incredible that the specialist's patients, well educated and relatively well-to-do, can be infected with a disease which he believes to be limited to social groups with which he does not deal.

"The medical profession's attitude of mind must be remedied before case-finding in syphilis is adequately successful."—Moore.

Without health, life is no life.—Rabelais.



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United States Pure Food Authorities Report on Campaign to Rid Market of Unclean Stocks.—Drug products recently seized were 38 dozen bottles of aromatic spirits of ammonia, 24 dozen bottles of sweet spirits of nitre, 5 lots (in bulk and capsules) of sandalwood oil, 1,024 bottles of hydrogen peroxide, and 75 cans of anesthetic ether, all falling below the official standards; 75 bottles of short-volume milk of magnesia; 760 packages of unsterile absorbent cotton; 1,454 gross of defective mechanical prophylactics; 39 packages of a defective "French pessaire," carrying claims for the treatment of cancer in women; 21 bottles of "Vitawine," containing less vitamin B than its label claimed, and 2,200 bottles of "Waukesha Fox Head Mineral Water," found to be polluted.

The following patent medicines were seized because of false and fraudulent therapeutic claims in their labels: Apostol Herb Tea, Balsam for the Lungs, Boroseptol Tablets (not antiseptic as claimed, and offered for the treatment of catarrh, ulcers, eczema, and women's diseases), Hon. Prof. Dr. Jos. Herman's Special Blood Purifier, Kidney Tablets, Kobros Tablets, Dr. Ranoll's Indian Herb Tablets and Indian Black Tablets, Saxon Blackberry Cordial Compound (for diarrhea, cholera morbus, and other ailments), and Tree of Life Tonic (for diabetes, and diseases of the stomach, blood, liver, and kidneys).

Terminations of eighteen criminal prosecutions were reported to the Administration. The cases involving foods are as follows: Hydaburg Fisheries, Inc., Hydaburg, Alaska, partially decomposed canned salmon, fine $200 and costs; Rothenberg & Schneider Bros., Chicago, Illinois, "Emulsol M" (a frozen egg product), partially decomposed, fine $35 and costs; Dutch Baker Boy, Inc., and John W. Kauffman, Washington, D. C., chocolate eclairs contaminated with harmful bacteria, alternative of $200 fine or sixty days' jail sentence on Kauffman, suspended by the Court; Favro Macaroni Mfg. Co., Seattle, Washington, spaghetti represented as made from "100 per cent semolina" but in fact of flour, and artificially colored, fine $11 and costs.

Angelo Glorioso, New Orleans, Louisiana, insufficiently concentrated tomato puree, fine $600, of which $300 was suspended by the Court, and the defendant was placed on three years' probation; Archer Produce Company (Abram and Thomas Buckley Archer), Vinita, Oklahoma, fined $25; Harding Cream Company, Omaha, Nebraska, fined $40 and costs; A. B. Winkley Cheese Company, Seattle, Washington, fined $55, and Turner & Pease Co., Inc., Seattle, Washington, fined $65 and costs, for shipments of butter containing less than the legal minimum of butterfat.

Drug case terminations were: Rathbun Sales Corporation, El Paso, Texas, below-standard tincture of iodin, fine $50; Aimotone Chemical Company (A. G. Fagras and Sam Mavros), "Aimotone," falsely represented as a blood purifier and a treatment for sluggish liver, fine $155; Alberty Food Products, Hollywood, California, "Malto-De," misrepresented as to its phosphorus and vitamin D content, fine $150; Astyptodyne Chemical Company, Inc., Wilmington, North Carolina, "Astyptodyne Cough Syrup" for bronchitis, sore throat, whooping cough and croup, and "Astyptodyne Ointment" for piles, fine $25.

Koch Products Co., Winona, Minnesota, "Dr. Koch's" Stick Salve, Sept-O-Cide, Inhalo, Cold Tablets, Camph-O-Lin, Cough Syrup, Vegetable Tea Tablets, Dyspepsia Tablets, Mentho-Campho, and Liver Pills, all carrying unsubstantiable medicinal claims, plea of guilty entered by defendant, and sentence deferred for one year by the Court.

Marie Leiblinger & Co., Inc. (Marie Leiblinger and Theodore W. Nosek), Altadena, California, "Nonat," an ointment for blood poisoning, felons, rheumatism, sore kidneys, poison ivy, lung fever and other conditions, fine $4; and Mentho-Jell Company, Albert Lea, Minnesota, "Kalo's Headache Powders," "Kalo's Mentho-Jell," and "Kalo's Veterinary Salve," fines of $25 in each of two cases.



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EDITOR GEORGE H. KRESS

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BUSINESS MANAGER GEORGE H. KRESS

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Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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Official Letter from President W. W. Roblee

CALIFORNIA MEDICAL ASSOCIATION
Office of the President

Subject:

EXECUTIVE OFFICERS FOR THE COMING YEAR

To Members of the California Medical Association:

The Constitution of the California Medical Association provides in Article X, Section 11, and Article VII, Section 5-D, that the Council, at its organization meeting held after the last meeting of the House of Delegates, shall elect a secretary-treasurer and editor and an attorney, these officers to serve for the ensuing year.

The Council met on May 12 and, after prolonged deliberation, unanimously elected Dr. George H. Kress to the combined office of secretary-treasurer and editor, Mr. Hartley F. Peart as counsel, and Mr. Hubert T. Morrow as associate counsel. This action was reaffirmed at a special Council meeting held in San Francisco on June 11.

For quite some time some of the members of the Council have felt that, if a suitable man could be found, the offices of secretary-treasurer and editor should be combined. As a matter of fact, Doctor Warnshuis was placed on a month-to-month basis at the 1937 (Del Monte) organization meeting of the Council (as noted in the June, 1937, issue of the Official Journal), and a committee was appointed to secure a successor. Several men were approached with reference to the position. After prolonged consideration, both individually and collectively, the Council voted to invite Doctor Kress to fill the combined office, and he accepted the call. Of the twenty-one councilors there were but two absentees when the decision was made. Both Doctor Warnshuis and Doctor Kress have rendered splendid service to the Association, but it was the judgment of the Council that Doctor Kress could more nearly fulfill the requirements of the office. He has been actively engaged in Association and organized medical activities for many years. He is a past president of this Association, and has served on the Council and Executive Committee continuously since 1907, following the reorganization of the State Association in 1902. His service to public health through membership in the State Board of Public Health, to medical education through his office of Dean of the Los Angeles Medical Department of the University of California at Los Angeles, and other activities has been outstanding. His statewide contacts will be



invaluable to us. He will move to San Francisco and devote his entire time to Association work.

The Association is thus fortunate in being able to have Doctor Kress for its executive head. This statement is not in any sense to be construed as a criticism of Doctor Warnshuis. He has given us splendid service. The Council had the difficult task of deciding between two excellent men, and it was hardly to be expected that all members of the Association would be pleased with the decision.

We have an important year in prospect. Problems of socialized medicine and other phases of medical economics, insurance in its varied aspects, undergraduate and postgraduate education, the fall election and the session of the Legislature, all will present a challenge to the profession which can be met only by united, harmonious and vigorous action. Your leaders, both elective and appointive, can serve you with satisfaction only if they have the active support and coöperation of every member. Whatever difference of opinion may exist, from time to time, as to policies or personnel should be subordinated to the decision of those upon whom the responsibility is placed.

W. W. Roblee, President.

Mission Inn Annex, Riverside.

EDITORIALS†

CALIFORNIA "HUMANE POUND LAW"

An Initiative Law, to Be on the Ballot in November.—A proposed measure, known as the "California Humane Pound Law," to be submitted, as an initiative statute, to the electorate of California next November, is already receiving, at so early a date as even the present, considerable newspaper space, with no doubt, later, much more to come. The statute has behind it several California and extra-state organizations that have submitted similar propositions (only under less alluring titles) to most of the California legislatures of recent years.

* * *

Importance of the Present Attempt.—The present attempt is worthy of special notice from the fact that more than 180,000 signatures of qualified voters were obtained to give it a place on the November state ballot, and because its proponents have secured the active support of many influential groups of citizens and press associations, to whom, without reflecting on the damage that could result to public health interests, through the enforcement of less desirable sections of the proposed law (discreetly kept in the background by the proponents of the measure), certain provisions and arguments evidently made a strong appeal. Much of the press publicity thus far given the promoters and their movement appears to be such as would influence the affection-emotions of dog owners, stressing the distress and sorrow they must naturally experience if they learned their dogs had been picked up, sent to a pound, to be later carried away and experimented upon under cruel conditions! With such expositions go other statements, usually culled from nonscientific sources, wherein the advances of medical science which have resulted from careful observation of research work on lower animals are much decried. Also flaunted to the fore are quite equally misleading provisions, when considered from the standpoint of how they would work out in actual practice.

* * *

"California and Western Medicine" Articles on the Subject.—Attention is called at this time to recent articles which have been printed in California and Western Medicine, because their perusal presents much of the information which physicians should have at their disposal when they cite to lay friends the undesirable features of this proposed initiative law. The articles referred to include: An editorial comment, on page 158, in the March, 1938, issue ("A Humane Pound Law Initiative" to be placed on the State Election Ballot in November, 1938); an article by Assemblyman James J. Boyle, on page 257 of the April, 1938, number ("As a Pharmacist Views the Proposed California Humane Pound Law"); and an article by Clinton H. Thienes, M.D., on page 258, in the April, 1938, issue ("Proposed California Humane Pound Law: How It Would Affect Medicine and Pharmacology").

In proper time, members of the medical profession will receive further information pertaining to this subject from the California Society for the Promotion of Medical Research; but, meanwhile, a review of the articles noted above may not be amiss.

1938 IS A CALIFORNIA ELECTION YEAR: WHAT SHOULD THAT MEAN?

Hundreds of New Laws Proposed to Every Legislature.—Every state legislative session creates for the California Medical Association many new, and often serious, problems in public health administration, using this term in the broadest sense, to include the Medical Practice Act, since that law, enacted for the purpose of maintaining adequate healing art standards, has distinct public health implications. Past experience has shown that it is never possible to forecast specifically just what new statutes of a type to interest and be of importance to the medical profession may be introduced by members of the State Legislature.

* * *

Not Possible to Accurately Forecast the Nature of Public Health Legislation.—That is why the Association's Committee on Public Policy and Legislation is prepared to find almost anything as it picks up and studies, for possible public health involvements, the hundreds of measures that are dropped into the legislative hoppers every two years. That committee of the California Medical Association (consisting of Drs. Junius B. Harris

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

of Sacramento, T. Henshaw Kelly of San Francisco, E. T. Remmen of Glendale and, ex officio, both the president and the secretary of the Association) bears the brunt of safeguarding the interests of Californians in so far as public health needs come into the picture. Particularly onerous has been the burden borne these many years by Doctor Harris of Sacramento, who, in season and out of season, has given unselfish and efficient service to the profession and to the people of California.

* * *

How Individual Members May Aid.—The purpose of now mentioning the work of the Committee on Public Policy and Legislation in this wise is to make the more than six thousand members of the California Medical Association appreciate their own collective and individual responsibilities in these important activities, which recur once in each biennium; and particularly to stress the necessity, on the part of physicians from one end of California to the other, of being alert in these matters, not in January of next year, but now, today, at the very time when candidates from the different political parties, in a bid for ballot support, are announcing their platforms and filing petitions. In every county medical society, a specific committee (or the administrative officers, acting as such) should keep a file of candidates, noting their backgrounds and possible affiliations, with special reference to their attitude on public health policies. Every voter has a right to find out from a candidate what are the general views of the aspirant who seeks office as a state assemblyman or state senator; and candidates in their initial campaigns are nearly always willing to align new support through exchange of views. It is just here, in efforts to learn the reactions of candidates to sound public health policies, that every physician who wishes to do his bit in support of the Committee on Public Policy and Legislation can be of real aid. Particularly important can be the rôle taken by attending physicians of candidates, since those members of the medical profession are favorably placed for confidential exchange of views.

* * *

Informative Data Should Be Sent to the Central Office of the Association.—All such information, if transmitted to the central office of the Association, can become of real value in determining who, among the numerous Assembly and Senate aspirants, give indication of broad and sound outlook on public health policies. Members of component county societies are urged, therefore, to note newspaper and other comments about legislative candidates, and through their local committees and officers to send such data to the Association's committee. The August primary election is not many days off. Much future conflict may be avoided if the candidate from each political party who is successful in the primary election has sound public health views. The end-results to be attained are surely worthy of the comparatively slight effort that can be successfully used, provided that effort be made at the right time, namely, *now!*

THE FIGHT AGAINST SYPHILIS

Intensive Nature of the Campaign Against Syphilis.—Physicians who participated in the initial campaigns designed to create public opinion that would support organized and large-scale efforts to combat tuberculosis, and remember what exertion was then necessary, must have a natural interest in the work launched by the United States Public Health Service and the American Social Hygiene Association in the fight against syphilis.

Only two years ago, when a local society was founded in one of the metropolitan centers of California to take up the struggle against the spread of venereal diseases, the representatives of certain newspapers stated that their chiefs would not give publicity to items for their columns if the word syphilis was used. Today, after a short period of intensive propaganda, the press throughout the United States is giving more or less whole-hearted coöperation. All this bodes well for the future.

* * *

United States Public Health Service Leaflets. In this issue, in the Letters Department, on page 96, attention is called to a new leaflet on "Syphilis, Its Cause, Its Spread, Its Cure." Although written for laymen, nevertheless it should be of interest to members of the medical profession. Still another leaflet was referred to in a letter received from Assistant Surgeon-General T. A. Vonderlehr, and given on page 474 of California and Western Medicine for June. Both leaflets—to be had from the Superintendent of Documents, Washington, D. C.—are well worthy of perusal.

AMERICAN MEDICAL ASSOCIATION SESSION AT SAN FRANCISCO

San Francisco Session Voted a Success.—The eighty-ninth annual session of the American Medical Association, held at San Francisco during the week of June 13, has come and has been voted a great success, both by physicians from other states and by members of the California Medical Association. Much praise is due both the American Medical Association and San Francisco committees, who had the arrangements in charge.

The meetings of the scientific sections, and other features, such as scientific and commercial exhibits, received most favorable comment.

The transactions of the House of Delegates will appear in the *Journal of the American Medical Association,* and should be scanned by all physicians who would keep in touch with current policies on medical practice, as announced through this official body of the organized medical profession of the United States.

* * *

Dr. Howard Morrow of San Francisco Becomes Vice-President of the American Medical Association.—California was honored last year by the election of Dr. Junius B. Harris of Sacramento as vice-president, and this year the same honor was tendered Dr. Howard Morrow of San Francisco, who, at the Pasadena session in May last, retired as president of the California Medical Association.

Elsewhere in this current number are reprinted some newspaper paragraphs giving further information concerning the American Medical Association session at San Francisco.*

ANNUAL JOINT MEETINGS WITH RELATED PROFESSIONS

Individualization in Medical Practice a Fundamental Element in Medical Progress.—Individualization in medical practice—meaning thereby the relation of the individual patient to his individual physician—is something that has existed since the beginnings of the healing art. With, however, the advent and promulgation, in recent years, of plans put forward by sociologists and others, and asserted by them as capable of providing a better system of medical care than that which has been responsible during the last several decades for much of the amazing advance in medical science leading to a notable prolongation of human life, it has been necessary to emphasize and reemphasize the value of this individual relationship between physician and patient, and its significance to medical progress.

* * *

In Civil and Political Life, Conjoint Effort Is Necessary.—Valuable as individualization may be in relation to the care of patients, it does not follow, in matters related to civil and political life, that such a system should likewise obtain. The citizen seeks the physician in whom he has confidence, and the physician, in turn, knowing that his success in professional life depends upon his alertness to the advances in medical science, seeks to use all methods that will aid in the conservation of human health and life.

In the political system under which we live, however, our lawmakers and civil administrators respond best when the considered opinion of influential persons is presented to them through organized groups of citizens having closely related professional, vocational, trade, or other affiliations. The prevention of the enactment of undesirable laws and ordinances is often more easily accomplished than their repeal; provided, that the appropriate presentations, at the proper time, are made to the statute makers, be they legislators, supervisors or councilmen, by responsible, authoritative and influential groups.

* * *

Close Association of the Professions of Medicine, Dentistry, Pharmacy, Law, Veterinary Medicine and Nursing.—The professions of medicine, dentistry, pharmacy, veterinary medicine, nursing, and even of the law, in these recent years, are constantly confronted with problems, such as corporate practice, in which the principles involved apply equally to each of the above professions, and are worthy, therefore, of the united opposition of these six professions, one or more of whose members practically have contacts of worth with virtually every family in the State of California.

Medical Profession Should Lead in Maintaining Contacts with Related Guilds.—How may this conjoint effort and action be best secured? In this endeavor, the medical profession, through its state and county units, and their official local subdivisions, should not hesitate to take the lead, if necessary. The objectives can be easily realized if every county medical society, each year, will invite the official organizations of their respective communities, representing dentistry, pharmacy, law, nursing and veterinary medicine, to be guests of the medical profession at joint meetings, with short speeches on pertinent topics by members of the two professions in session, to be preceded or followed by an informal dinner or supper or buffet refreshments.

Such meetings are certain to be found thought-stimulating, and are valuable also for the fraternal fellowships and better understandings that can then and there be so engendered. Program committees are urged to give these suggestions their consideration, and especially, in this election year, to bring about, if possible, such conjoint meetings prior to the final elections in November. In the past, such gatherings have been found most useful; and today, they are as important, and more than ever needed.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 69.

EDITORIAL COMMENT†

HOW SAFE IS THE OPERATION FOR LENGTHENING LEGS?

An operation that will add two to three inches of length to a short leg is highly desirable from several points of view. The strongest appeal from the patient's standpoint is the cosmetic one; but there are other valid reasons to make this particular operation a valuable asset to the orthopedic surgeon's armamentarium.

In the case of a weak leg of poliomyelitis, making the leg lengths equal reduces the load of the heavy, raised shoe. Many of these patients must and are physically able to take their place in the commercial world, but their chances of finding employment while wearing an unsightly raised shoe is definitely decreased.

During the past eight years, at the Orthopedic Hospital in Los Angeles, we have done seventy-five leg-lengthening operations. This shortening has been associated with a variety of conditions, such as poliomyelitis, spastic hemiplegia, hemi-ectromelia,

* For these news items, see page 100.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

fracture of the femur, and shortening due to osteomyelitis and tuberculosis of the hip and knee.

With an experience such as this, study of the end-results has helped crystallize certain opinions, and has given valuable information on such points as type of patient, the age, the site of operation, certain dangers, and other important data that must be considered before such an operation is decided upon.

I have no hesitancy in stating that in the hands of competent men this operation is safe and practical when the lengthening is done below the knee. In 90 per cent of the cases the operation has proceeded without mishap, the predetermined length obtained, and an end-result accomplished that was highly satisfactory to the surgeon and to the patient.

In a few instances, unpleasant situations have arisen, but there has been no mortality, and in no case has the limb been threatened. Occasionally, when dealing with very small leg bones of poliomyelitis patients, solid union has been delayed, so that protection against full weight bearing was required for two years. In a few, a low-grade, late infection developed with sequestration of bone, but in each instance the leg healed in time and the end-result was not impaired. In three cases, one of the bone tongues was accidentally fractured at surgery, which, of course, meant that the lengthening process had to be given up and the bone treated as a fracture.

While the younger patients tolerate the stretching of the soft tissues which must go on during the lengthening process of the bone, yet if the operation is done much before the age of twelve or fourteen years, there may be again considerable inequality of leg lengths by the time the epiphyseal lines are closed. In most cases where lengthening was done around twelve years, the short leg continued to grow in length as fast as the opposite leg, but there were several notable exceptions. In these patients, all poliomyelitis, there was a rapid growth in height following the operation. A year later the legs were equal, but several years later when the epiphyses of the tibia had closed, the paralyzed leg was an inch short.

Lengthening of the femur is a much more formidable procedure. The upper pins are in a potentially contaminated field, and are in close approximation to the femoral vessels and nerve. An infection here might give considerable concern. In this series, it was necessary to remove the pins for this very reason before adequate length had been obtained.

Furthermore, the massive muscles of the thigh offer more resistance to stretching, making it more difficult to maintain good approximation of the bone fragments. In several of the older patients, there occurred considerable fibrosis about the knee on account of the stretching and tearing of the soft tissues which brought about a marked restriction of knee motion. This hazard is further increased because of the long period of time it is usually necessary to immobilize the femur in plaster before union is advanced.

In the younger poliomyelitis patients the operation is easier; also in those patients in which the hip is fused, as from tuberculosis. In the latter case, the proximal fragment is fixed, and it makes easier the maintenance of good alignment.

Follow-up studies of seventy-five patients over an eight-year period have given assurance that lengthening of the leg below the knee is safe and practical; but operation above the knee is difficult, and carries a definite hazard. It should be performed only upon a very selected type of case, and even then the operator must be fully cognizant of the several pitfalls that may lie ahead of him.

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Alvia Brockway,
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METASTASIS

Every student of the cancer problem recognizes the fact that its solution lies in the understanding and control of metastasis. Though cancer patients do recover even when metastasis has taken place, it is only when the first group of nodes is involved, for they still may be removed completely by surgical means or destroyed in toto by radiological methods. The production of cancer by painting the skin with benzine ring compounds, or by the use of ovarian hormones, gives us an inkling as to the specificity of irritants that result in malignant transformation of cells, but it gives us no idea as to the cause of the migration of those or similar cells into other parts of the body.

Returning to clinical facts, why should a large, bulky, fungating malignancy of the tongue or the floor of the mouth result in late metastasis, while a small, insignificant, infiltrating lesion results in early metastasis into the neighboring nodes before the primary is discoverable? Or, why should an undifferentiated growth metastasize early and far, while the well-differentiated growth metastasizes late? What then, is the determining factor in the production of very malignant, moderately-malignant, or mildly-malignant cells? Experimentally, we know that a massaged breast tumor in mice leads to early extension to the nodes; the cells are milked into the lymphatic circulation, and they finally lodge in the primary node. Possibly muscular contraction forces them along the lymph channels and leads to dissemination, especially when the growth infiltrates from the beginning.

How many cells are needed to produce clinical metastasis? Theoretically, one cell should suffice, but does it work out that way? Gaetani and Blothner, working with transplantable tumors in animals, have estimated that an average minimum of 430,000 cells are needed to produce a viable growth, though 100,000 may at times result in a take. Possibly, a large quantity of cells is necessary to produce clinical metastasis in the patient; otherwise, why do some patients who have had a carcinoma of the breast removed come back ten years later with no local evidence of disease, but with a pathologic fracture of the humerus, the femur, or with a vertebral destruction—or why does a patient who has had an eye removed for a malignant melano-epithelioma die of metastasis to the liver ten to fifteen years later, with no other evidence of melanoma? Surely these cells must have entered

the circulation before the operation or during the operation, but what accounts for their renewed activity after "sleeping" so many years?

That metastasis is much more prevalent in the cancer patient than ordinarily believed has been brought out by Maner and Snure in a fine piece of work. They have shown that metastases to the lumbar vertebrae from carcinomas of the stomach are demonstrable grossly and microscopically in a large percentage of cases that came to autopsy, even though no clinical or radiological evidence is present. In these cases, when a wedge of the lumbar vertebra is removed at the postmortem table and radiographed, there is no evidence of metastasis visible on the film. In other words, the organism may be saturated with malignant cells and still we have no way of demonstrating this clinically. Likewise, Shields Warren, in his "Studies on Tumor Metastasis," has shown its frequency in the spleen. The literature is full of statements to the effect that the spleen is rarely involved; and various explanations are offered to substantiate such statements. It is true that, grossly, the spleen is not often involved, but, microscopically, malignant cells are quite prevalent.

In the wear and tear of life in the organism, what becomes of the old, worn-out normal cells? Are these destroyed in situ by lytic substances, or are they extruded into the lymphatic circulation or into the blood stream, to be destroyed by the reticulo endothelial cells of the lymph nodes, or in the spleen? If they are destroyed locally, one should be able to demonstrate them occasionally in microscopic sections. We do know that the old and decrepit red blood cells are disposed of in such a manner in the spleen. Is it not possible, then, that such a phenomenon is a normal procedure in the body economy? Malignant cells with no function to perform are but invaders, and are pushed into the circulation to be filtered out. The Canti film shows that cancer cells cultivated in vitro take on ameboid movement, which could explain such a step. What, then, determines clinical evidence of metastasis? Two factors are at work; first, the quality which may determine the location, and, second, the quantity of cells which results in clinical manifestation. Breast, thyroid and prostate have a predilection for bone; melanoma for liver. In those organs the cells may lie dormant or may grow. When the organism has been weakened by some unknown factor, the quantity of cells is the determining force, for then other organs are involved. Years ago Cohnheim said, "Only when and where tissues are lowered in their physiologic metabolism by age, atrophy, and inflammation, will metastasis be possible."

We have known for a long time about the Freund-Kaminer reaction, namely, that the serum of a carcinoma patient will not digest cancer cells, but the serum of a normal patient does. Is it possible that certain lytic substances are present in the serum that maintain a normal balance; when this is destroyed by age or inflammatory disturbances the destruction of cells outside their normal sphere is disturbed, qualitatively and quantitatively?

Millions of dollars have been spent in research, some of it wisely, some of it wastefully. In these times of economic distress and civic illness, every man, be he rich or poor, has an opinion as to the causes of and remedies for the depression. So, too, in cancer, every man, be he a trained worker or a clinician who sees only an occasional case, has an opinion as to the nature of cancer and what may be needed for cure. As we grow older, we all become armchair philosophers, forgetting the really fundamental problem. Why do these cells begin to wander and why do they grow in distant locations? The simple fact remains, we are doing more, or attempting to do more, for the cancer patient than we have ever done by surgery and radiation, but despite our research we have learned very little about the spread of carcinoma per se. Research must, therefore, be carried on to answer some of the questions raised; some of this research will, of course, be useless. Remember, though, the salmon, it lays a million eggs in order that one may survive to carry on the species. So, too, in cancer, a thousand valueless experiments must be performed before one that will be worth while results. We should not be satisfied with the production of malignancy alone, but rather try to fathom the mystery of cell migration and metastasis to reach a satisfactory conclusion.

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SENILE PARALYSIS AND VITAMIN E

Two years ago, Dr. G. O. Burr [1] and his associates of the Departments of Botany and Anatomy, University of Minnesota, placed a group of eight recently weaned female rats on a highly purified, fat-free basal diet (550-B), supplemented by vitamins A and B, viosterol, fat-free yeast, and linseed oil. The only factor known to be low or absent from this diet was vitamin E. At the end of one year the animals had increased to an average weight of 172 grams. During the second year three of the animals died of unknown causes. The five surviving rats became paralyzed with loss of use of their hind limbs at approximately twenty-two months of age. The striking feature was the incidence of this senile paralysis at exactly the same age in all five animals. Efforts to effect a cure by the addition of large doses of vitamin E to the daily diet were unsuccessful. Similar senile paralyses in vitamin E deficient rats have been noted by Doctor Evans [2] of the University of California. The deficiency paralysis is limited to the hind legs, and is apparently neither completely motor nor completely sensory in character. The muscles are not noticeably atrophic. Certain cell groups in the brain and spinal cord of the few rats thus far autopsied showed yellow pigmentation. The possibility that the immediate cause of the deficiency paralysis is a microbic or virus infection, however, has not yet been excluded.

P. O. Box 51.

W. H. Manwaring,
Stanford University.

1 Burr, G. O., Brown, W. R., and Moseley, R. L.: Proc. Soc. Exp. Biol. and Med., 36:780, (June), 1937.

2 Personal communication to Doctor Burr.

ORIGINAL ARTICLES

SYPHILIS IN RELATION TO SURGICAL PROBLEMS*

By Udo J. Wile, M.D.
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THE clinical course of syphilis may be said to follow a certain orderly sequence. The frequent deviation from this sequence of clinical events contributes to a mimicry of medical and surgical conditions which constitutes a constant pitfall for the unwary clinician.

There are few fields—medical, surgical, or neurological—in which syphilis does not present problems directly caused by a syphilitic pathology. At the same time there is no morbid condition which, under certain circumstances, syphilis may not so closely approximate that its intrusion into any field or any pathologic picture must always be assumed as possible. Failure to recognize or to appraise this sooner or later brings its humiliating awakening.

PROBLEMS HERE CONSIDERED

Syphilitic morbid conditions as they enter into the field of surgery present problems, both of prognosis and diagnosis. In this essay I shall present first the problem of the syphilitic as a surgical risk, next the surgical conditions directly caused by the syphilitic infection, or otherwise stated, the syphilitic condition calling for surgical intervention, and lastly I should like to discuss and to illustrate examples of syphilitic lesions which so closely approximate surgical conditions that the differential diagnosis is frequently difficult, and failure to recognize their syphilitic nature frequently leads to needless operative procedures.

I. THE SYPHILITIC PATIENT AS A SURGICAL RISK

The syphilitic, whether in the earlier or later stages of his disease, must be carefully appraised with regard to his infection when he presents himself as a surgical problem, whether this be an acute condition or one in which operation is indicated but may be delayed. The patient with an acute syphilis complicated by an acute surgical condition presents first a certain risk to the operator from accidental infection. More often, however, the problem is one of a happy surgical result in the presence of a syphilitic sepsis which, for the time being, may have to be disregarded in the light of an acute surgical emergency.

ACCIDENTAL INFECTIONS AMONG PHYSICIANS

Turning first to the danger to the operator himself, the majority of cases of accidental infection among surgeons and obstetricians have occurred from trivial injuries sustained during operation through definite contact with the infected blood of the patient. Such accidental infections were certainly more common before the universal use of rubber gloves, but they are still occasionally encountered and should be regarded as absolutely preventable accidents in practically all cases. The routine careful examination of a surgical patient and a preliminary biologic test of his blood would indicate the presence of syphilis in any patient except for those cases in which the infection had been so recent that the blood was still negative. Where an active infection is present, and unless a serious emergency exists calling for immediate operation, the patient may in a short time be properly fortified by treatment, so that the risk of contamination by his blood is a negligible factor. Such a temporary sterilization can be effected in three or four days. Where such delay is impossible and obviously such conditions exist, the presence of an acute syphilitic infection, or indeed a chronic one as evidenced by a positive serologic test, calls for extreme care on the part of the surgeon lest he injure himself and become accidentally infected. Most syphilologists see cases each year in which disregard of these precautions results in accidental infections acquired during an operative procedure.

TREATMENT WHEN POSSIBLE INFECTION OCCURS

If during an operation in which the necessary precautions have been observed, an accident still happens in which a puncture wound might lead to the possibility of infection, the prompt enlarging of the wound, permitting free bleeding, and its immediate treatment with a strong calomel ointment is excellent prophylaxis against infection. If the patient be in that period of his disease, immediately before, during or shortly after his exanthem, the additional precaution of two or three injections of an arsphenamin is indicated as well as local treatment of the puncture wound. In several instances in which puncture wounds have occurred during operation, the procedure just outlined has never, in my experience, been followed by an accidentally acquired syphilis.

RECENT SYPHILITIC INFECTIONS IN RELATION TO OPERATIVE PROCEDURES

Viewed from the standpoint of the patient, a septic case of syphilis may be seriously damaged by a rapid dissemination of the infection through operative procedure. Where a few days' delay for preliminary treatment is not possible, such patients should receive at the earliest moment after operation, treatment which serves to offset a rapid dissemination of their infection. The presence of an active syphilis can at the same time seriously affect the desired surgical result. The spirocheta naturally gravitates to places of least resistance. Points of surgical operation constitute ideal foci for the development of acute syphilomata, and a serious and unfortunate surgical result may, not infrequently, occur because of the intrusion into the site of injury of a syphiloma. Such untoward surgical results are frequently seen in such conditions as fractures, dental extractions, and may be seen in any form of otherwise clean surgical procedures. The prompt treatment of the syphilitic

* Guest-speaker address given at the first general meeting of the California Medical Association during the sixty-seventh annual session, Pasadena, May 9–12, 1938.

Studies and contributions of the Department of Dermatology and Syphilology, University of Michigan Medical School. Service of Dr. Udo J. Wile.

patient who must undergo acute surgery will almost invariably obviate such unfortunate results.

RISKS TO OPERATOR AND PATIENT WHEN OLD SYPHILIS EXISTS

The patient in whom an old syphilis exists may be appraised somewhat more favorably as regards his risks for acute or delayed surgical procedure. Patients of this type who have had syphilis for a long time, even if untreated present a very unlikely risk to the operator, who may become contaminated with the patient's blood. Such a risk, however, is not entirely negligible, and undoubtedly a few infections have occurred from old untreated cases. Where there has been a good background of treatment, an old syphilitic, either serologically negative or positive, has, in my experience, never been the source of an accidental infection during surgical operation.

The risk, however, to the patient of this type still obtains; particularly is this true of the so-called latent syphilitic patient and one in whom there has been a poor background of treatment or none at all. The anticipated happy outcome of operation is occasionally replaced by a humiliating, sloughing, nonhealing wound, the result of an actual gummous syphiloma developing in the operative field. Such lesions are difficult to appraise as syphilomas by reason of the presence of secondary infection, and because their syphilitic nature has been definitely altered by the operative procedures. Operations on the long bones, on the jaw, on the bones of the head, in plastic surgery, are just a few of the many instances in which I have seen such untoward and preventable mishaps.

IMPORTANCE OF ROUTINE SEROLOGIC PREOPERATIVE BLOOD TEST

Cases of this kind can readily be prevented in the vast majority of cases by the routine serologic preoperative blood test. This simple precaution now taken in many hospitals should be routinely insisted upon by all surgeons.

I am quite certain, from my own experience, that such accidents are not so prone to occur in hospitals where routine procedures are usually the rule, but are more apt to happen in the private practice where the patient's social status or, as frequently, his advanced age have been factors in disregarding the possibility of the existence of old syphilis.

When an untoward surgical result has been properly evaluated as a syphilitic accident, prompt treatment usually leads immediately to satisfactory healing, but is frequently complicated by cicatricial contractions or residua which could have been avoided had the patient's syphilis been properly appraised before operation.

PROPER APPRAISAL OF THE SYPHILITIC INFECTION

I may be permitted to emphasize at this point that the finding of a positive test of itself does not necessarily constitute an invariable contraindication to immediate surgical operation. The all-important question where such a finding occurs is the proper appraisal of the syphilitic infection indicated by the test. The first factor to be determined is the duration of the infection. As has been stated before, generally speaking the older the infection the less is its importance, viewed from the standpoint of the patient as a surgical risk. Of far greater importance, however, is the determination of the amount of treatment in the background of the patient's infection. If the infection has been adequately treated according to modern standards, particularly during the early years, even if there has been only a fair background of antisyphilitic treatment, the risk of untoward surgical result is very slight and operative procedure need not be delayed. If, however, the patient is in a latent stage with little or no background of treatment, then, unless the emergency is great, happier surgical results will be achieved if operation is postponed until the patient has been properly fortified. Short preoperative treatment combined with the continuance of treatment during convalescence is then indicated and invariably results in no interference from the latent syphilis in the operative field.

During the past twenty years, during which routine serologic tests have been done on all patients in the University Hospital in which I serve, we have found that two or three injections of an arsphenamin with the simultaneous administration of bismuth or mercury over a period of about two weeks, have sufficed to protect all patients against any unhappy surgical result, provided this treatment is continued during the period of surgical convalescence.

Under such a regimen I have never seen an old syphilis lighted up through surgical trauma or a surgical wound complicated by a syphiloma. Where such have occurred they have invariably been due to a slip-up in which for one reason or another the syphilis has either been ignored, improperly appraised, or unsuspected.

II. SURGICAL CONDITIONS DIRECTLY CAUSED BY SYPHILITIC INFECTION

There is little written in surgical texts concerning the surgical indications of syphilitic disease, and yet there are definite syphilitic entities which call for a combination of antisyphilitic treatment and surgical measures before they may be properly corrected.

Generally speaking, these are usually late sequelae of syphilitic disease. Of foremost importance are the many cases of osteomyelitis involving the long bones, and those of the skull in which definite sequestration occurs. Next are cases of gumma of the testis, gumma of the spinal cord, gumma of the eye, obstructive and cicatricial changes the result of old syphilitic ulcerations, such as not infrequently lead to dysfunction and obstruction. Among the latter deserving of particular mention are strictures of the esophagus, stricture from old syphilitic ulcer of the stomach, and adhesive peritonitis affecting the colon and sigmoid, and occasionally rectal strictures.

Gummous arthritis, and osteoarthritis very occasionally associated with pyogenic infection of the joint, must also be mentioned. Cases frequently associated with neurosyphilis, such as mal perforans and Charcot's arthropathy, also occasionally call for corrective surgical measures.

Syphilitic Osteomyelitis:

Syphilitic osteomyelitis not only calls for surgical intervention for successful treatment of the condition, and the removal of diseased and sequestered portions of the affected bone, but this condition when caused by syphilis presents a striking mimicry to other forms of osteomyelitis. Surgical intervention alone, without the supportive background of antisyphilitic treatment, is fraught with failure to the same degree as antisyphilitic treatment in such cases without surgical intervention. I have seen a number of examples of syphilitic osteomyelitis in which this mimicry occurred, some of which I shall hope to show in lantern slides at the conclusion of this paper.

Gumma of the Testis and Gumma of the Spinal Cord:

Gumma of the testis and gumma of the spinal cord are two notable exceptions to the rule, that it is unwise to touch the knife to purely syphilitic conditions. In the testis there is a most rapid destruction of the entire organ and almost immediate fixation to the overlying skin. No amount of antisyphilitic treatment can prevent the complete disintegration of the organ after a gumma has established itself in the testicular body. The entire parenchymatous structure of the testis rapidly breaks down and the condition as soon as diagnosed calls for immediate castration, followed of course, and preceded if possible, by thorough antisyphilitic treatment to insure a satisfactory surgical result.

What applies to the testis is even more true of gumma, as it occurs in the spinal cord. In the brain, gummas readily resolve under prompt and energetic antisyphilitic treatment, and as a rule these call for no surgical intervention, although here again the mimicry of the condition to brain tumor leads frequently to erroneous diagnoses and to operative procedures which could be avoided. In the cord the gumma develops so rapidly as a rule, and pressure myelitis and degeneration are so great a danger, that it is not safe to wait for the resolution of the gummous lesion by antisyphilitic treatment.

Where this condition can be diagnosed before operation or is found at the exploratory, the gumma should be quickly removed and the patient then thoroughly treated to avoid extension of the process.

Gumma of the Eyeball:

With equal rapidity does an extensive gumma of the globe destroy the appearance as well as the usefulness of the eye. Such a lesion rapidly destroys the entire eye, and the condition as soon as diagnosed calls for enucleation as soon as the patient has been thoroughly treated. The process is so rapid that preliminary treatment is only given together with postoperative treatment to insure a good surgical result and to protect the patient against further syphilitic sequelae.

Osteomyelitis of the Small Bones of the Head:

Of particular interest to the otologist and the rhinologist are the occurrence of osteomyelitic processes in the small bones of the head. These occur as gummous lesions, both in the acquired and in the congenital form of the disease, involving the delicate structure of the intranasal skeleton. These bones are rapidly sequestered, and their removal by surgical procedure, together with prompt and energetic specific treatment is essential in all cases to produce an ideal result and to limit an otherwise rapidly spreading condition.

Cicatricial Contractions:

Concerning the obstructive changes, these are usually due to cicatricial contractions as a result of the healing of old syphilitic ulcerations. The constricted stomach from old, healed gastric syphilis often presents a situation calling for such a bypath operation as gastro-enterostomy. Cicatricial contractions of the esophagus as the result of old syphilitic ulcers may be relieved by bougie dilatation. The very occasional strictures of the rectum, for the most part inoperable, may occasionally be relieved through surgical removal. Late investigations would seem to indicate, however, that many of such previously regarded syphilitic strictures are due to lymphopathia venereum—the most, in fact, in all probability. There are still, however, occasionally found rectal strictures which are the sequelae of slow healing ulcerative gummous proctitis.

Plastic Peritonitis:

Very little recognized is the association of plastic peritonitis in latent syphilitic individuals following abdominal operations. I have not seen this reported elsewhere, but I am quite certain, from my own observations, that the occasional occurrence of peritoneal adhesions, which later give rise to pain, sometimes to definite intestinal obstruction, can be ascribed to the presence of unsuspected latent syphilitic visceral disease.

I have particularly seen this occur in cases of syphilitic cirrhosis, and following operation for gastric disease, either ulcer or cancer, where the condition was later determined to be either gastric or perigastric syphilis.

Such forms of plastic peritonitis, due to visceral syphilis, need not, however, follow operation, but occasionally occur during the course of chronic syphilitic disease, particularly of the liver, stomach and spleen, and are not infrequently found present when the patients are operated upon for one cause or another.

III. DIAGNOSIS OF SYPHILITIC LESIONS CLOSELY APPROXIMATING OTHER SURGICAL CONDITIONS

I should like now to direct attention to the many syphilitic conditions with surgical mimicry. These perhaps constitute the most important phases of the surgical aspects of syphilis, inasmuch as they are frequently the sources of error in diagnosis and lead to surgical attack where this is entirely unnecessary.

Chancre and Cancer:

First and foremost is the mimicry which exists between the chancre and the cancer. How many

surgeons of long experience can say that they have not fallen into error in mistaking the primary lesion of syphilis for a cancer when this occurs on the lip or tongue or breast?

In the days before the discovery of the spirochete and before the introduction of diagnostic blood tests there was perhaps some excuse for an occasional error of this nature.

In these days, where the clinical diagnosis can be substantiated by such accurate laboratory methods, the removal of a breast, of a tongue, of the lip, or the penis, when syphilis is mistaken for cancer, constitutes an inexcusable error. The time is too short to enable me to elaborate upon the differential diagnosis between the genital and extragenital sore, and the cancer in the corresponding areas. In the main, there are sufficient clinical criteria to enable the careful diagnostician to make a diagnosis without laboratory aid.

There are, however, occasional cases in which the traumatized chancre can so closely simulate the cancer that the most careful clinical analysis fails to establish clear differential diagnostic criteria. Under these conditions the laboratory aid, with the demonstration of the infecting organisms or the biologic test, or both, as well as the biopsy, will serve to prevent a serious error in diagnosis. In the case of the finger chancre, the majority of cases which I have seen have all been mistaken for some form of paronychia and have been incised or otherwise surgically treated.

Gummous Lymphadenitis and Tuberculous Disease:

Of great interest are the occasional cases of gummous lymphadenitis affecting particularly the glands of the neck and simulating closely tuberculous disease. The points of differentiation clinically are not very clear-cut. Nevertheless, they are sufficiently definite, together with the laboratory diagnostic criteria, to enable one to establish a diagnosis if sufficient time and thought be given to it. I have seen gummous lymphadenitis also confused with Hodgkin's disease and lymphosarcoma.

Syphilis of Long Bones and Tuberculosis and Sarcoma:

Syphilis of the long bones, simulating either tuberculosis or sarcoma, is another excellent example of syphilitic mimicry in a definite surgical field. Together with these are the frequent cases of syphilitic osteomyelitis, particularly those on the skull, tibia, on the radius and ulna, clavicle, ribs and sternum, which quite often are incised in the supposition that they are some form of septic or pyogenic disease. In connection with the bursae, it should be remembered that the prepatellar bursa and that over the olecranon are peculiarly disposed to gummous involvement, and as they are also frequently the site of traumatic bursitis an obvious confusion as to their nature can exist.

Gastric Syphilis and Other Gastropathies:

Simulating other gastropathies are the various forms of gastric syphilis. These occur in the form of round and serpiginous ulcer and of gummous tumor simulating cancer.

Clinically, and even from the standpoint of the x-ray, there are no adequate criteria to establish the differential diagnosis between the various forms of gastric syphilis and other forms of gastric pathology which they so closely simulate.

Syphilis may produce a round ulcer either by thrombosis and infarction or by gummous ulceration which is indistinguishable from peptic ulcer. The more diffuse form of ulcerative gastritis due to syphilis is clinically indistinguishable from other forms of ulcerative gastritis. Solitary massive gummas of the gastric wall present the typical picture of gastric neoplasm.

For the most part, the diagnosis of these forms of syphilitic disease is an operative, pathological, or postmortem finding. They constitute the most striking examples of syphilitic mimicry.

In a syphilitic individual, the occurrence of gastric disease which proves unamenable to the accepted forms of treatment should always be investigated with the possibility that one may be dealing with one of the many forms of gastric syphilis.

I shall hope presently to demonstrate some interesting cases of gastric syphilis which were mistaken for cancer or ulcer and some of which would have been operated upon had the syphilitic nature of the condition not been suspected.

Neurosyphilitic Disease:

Lastly, reference might very profitably be made to the various manifestations of neurologic syphilitic disease which present conditions not infrequently mistaken for surgical indications. Of greatest frequency are the gastric crises, the abdominal crises, hepatic and gall-bladder pain, crises involving the uterus and bladder, all due to tabes dorsalis and all of them occasionally surgically treated by reason of their simulating various forms of the acute abdomen.

Syphilis and Abdominal Crises of Tabes:

What surgeon of experience has not at some time operated for what he believed to be gall-bladder disease or gastric disease, to find a completely negative abdomen and nothing else to substantiate a sharply localized pain and abdominal distention which so eloquently bespeak the acute abdomen? It is no uncommon finding in old tabetics to ascertain the history of surgical intervention for crises, and to meet with telltale scars indicating operative interference. I have many times seen tabetics who have had not only such exploratory operations, but who have had gall-bladders removed or drained, or who had had gastro-enterostomies performed, needless to say with no relief of the symptoms for which they were operated upon. Cases of this kind are frequently more or less obscure types of tabes in that they are not ataxic individuals.

The findings of greatest importance in establishing the true nature of such conditions of surgical mimicry are those of the eye. I think it is a safe statement that no case of gastric, abdominal or other form of tabetic crisis occurs without pupillary disturbance which would enable a diagnosis of cerebrospinal disease to be established. Of secondary importance, but also frequently present, are

the conditions of the tendon reflexes and other neurological findings of the motor and sensory systems which for the most part can be determined, together with the blood and lumbar puncture findings to substantiate, from the laboratory, the clinical picture of tabes.

At this point it must be stated that patients who have a definite locomotor ataxia may, nevertheless, have a gastric or duodenal ulcer which might readily be mistaken for some form of crisis. A few years ago this picture was indelibly impressed upon my mind by a tabetic whom I had been treating for his cord disease and whom we believed to have gastric crises. His x-ray studies were entirely negative for any pathology in his gastro-intestinal tract. His symptoms were in no way relieved by any form of treatment and he very suddenly died from acute hemorrhage. At the postmortem he was found to have a very small duodenal ulcer which, although undemonstrable by the x-ray, nevertheless led to perforation and to erosion of a large vessel which resulted in his fatal hemorrhage.

IN CONCLUSION

In conclusion, syphilitic disease presents itself to the surgeon from many different angles. The evaluation, therefore, of the individual with syphilis, first as a surgical risk, and second, in appraisal of his syphilis as a possible cause of a surgical condition, is of vital prognostic and diagnostic importance.

Syphilis may be said, in the main, to have a casual rather than a causal relation to surgical problems. The proper appreciation of its occasional rôle as a causal factor would lead to happier end-results, less accidental infection, less unnecessary surgical intervention and a clearer concept of the devastating effect, which, through its ubiquity, syphilis may have on all other morbid processes.

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STATE-WIDE MENTAL HYGIENE PROGRAM: ITS IMPORTANCE TO CALIFORNIA*

By F. O. Butler, M.D.
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THE need for a well-rounded-out program of mental hygiene in California has been apparent for many years.

The nation as a whole has recognized this, hence the starting of the National Committee for Mental Hygiene in this country a number of years ago.

This year Canada, our sister country on the north, will be celebrating the twentieth anniversary of the birth of the Canadian National Committee for Mental Hygiene.

In Paris, last year, was held the second International Congress on Mental Hygiene, the first having assembled in Washington, D. C., in 1930. It took the founders of this congress twenty-two years to work up such a world organization. In 1930 fifty-three foreign countries were represented, and last year a similar number were registered in Paris, indicating quite clearly that the world is awake to the necessity of mental hygiene on a broad scale.

CALIFORNIA'S MENTAL HYGIENE SURVEY OF NINE YEARS AGO

California did take quite a definite step nine years ago by sponsoring a mental hygiene movement. A legislative measure, appropriating $20,000, was passed to make a survey of the situation and the importance of establishing a program, but, unfortunately, the depression immediately followed, which probably was the chief reason for the survey not being used to advantage.

This survey, headed by Dr. Frederick H. Allen of Pennsylvania, a very capable man, under the sponsorship of the State Department of Social Welfare, after an exhaustive study of approximately two years, did give some very definite and splendid recommendations, many of which will still apply at this late date. However, it is too bad to have to report that the results of this $20,000 expenditure were put to no practical use. Conditions naturally have changed materially since that report was made, but fundamentally they are just as sound today as they were then. Therefore, it should appear to all those in California who are vitally and directly interested, and to those who should be, that we should start in where this survey ended, or on a new basis, if necessary, and develop and carry on a mental hygiene program, as such, for the best interest of the population as a whole. In fact, it is quite evident that the need of something of this kind is most essential, since so many people from other states are coming to California by the thousands each month, both because of conditions in other states and the new laws and programs for aid which have been put in effect here in the past few years. This is particularly manifested by those seeking aid from various local agencies in the communities and the early requests for admission to the various establishments within the Department of Institutions.

HOW CALIFORNIA IS MEETING SOME OF ITS PROBLEMS

California spends approximately $90,000 each biennium for deporting mental patients back to their native states. If it were not for this arrangement our institutions would soon be filled with those from other states at the sacrifice of those entitled to admission by full residence requirements.

In many of the larger centers in the state and away from some of our state institutions, outpatient clinics are held, but on such a small scale that many cases are not reached until something happens to bring them to the attention of those concerned.

For many years mental hygiene clinics have been held by members of the staff of the Sonoma State Home in the twenty counties north of the Bay district. A recent survey was made covering the present fiscal year up to March 31. During this period 475 cases were examined. Of this number, 52.5 per cent ranged from low normal upward in-

* Chairman's address, Neuropsychiatry Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

From the office of the Medical Director, Sonoma State Home, Eldridge.

tellectually, the remaining 47.5 per cent from the borderline downward, thus indicating that the majority of the so-called normal individuals needed mental hygiene advice and treatment.

Many of these should have been examined much earlier. We find many children, who, if seen in the preschool age, would undoubtedly have profited by proper advice and treatment. It is much cheaper to maintain sufficient clinics in the communities than later to have to care for individuals in our institutions, both private and state. The first few years of a child's life are the formative ones, during which period the foundation is laid for adequate social habits. If all children could have proper attention early, both physically and mentally, it would be a great factor for their future welfare.

NONINSTITUTIONAL PROBLEMS

No state in the country has over, approximately, 10 per cent of their mentally deficient cases in state institutions, and it is this other 90 per cent that we should be especially concerned about. If this 90 per cent can be properly and adequately reached by a properly organized program, it would be money well and economically spent.

According to a survey made a few years ago by the White House Conference on Child Health and Protection, it was indicated there were at least two per cent who fell in the mentally deficient class.

Some states have developed a control on this type of case, and in one state the law provides for identification, registration, adjudication, prevention of marriage, and supervision in the community of all the mentally defectives in the state. It consists of a central or state commission, together with a subcommission in every county in the state, operating under the control body. If some such group could be developed in our state, to cover all phases coming under the general heading of mental hygiene, it would probably meet the requirements of our needs. With this general state organization as a working body, and operated as such, or placed under the authority of an already functioning state department such as the California Department of Institutions, which now has jurisdiction over all our mental patients, it would no doubt help to keep down considerable expense.

CALIFORNIA DEPARTMENT OF INSTITUTIONS: ITS EXPENDITURES

The Department of Institutions is now costing approximately $15,000,000 each biennium to operate and cares for about 26,000 cases, with an annual increase of about 800 mental cases and about 500 mental defectives. Unless some system of prevention and control is instituted, this burden will soon increase to the point that the tax burden will become so great that, instead of being able to care for more cases in our institutions, it will be just the reverse and we will revert to the old system of custodial care only. The last biennium the Department of Institutions spent $4,000,000 on buildings alone, and at this period at least $6,000,000 is being spent, besides a federal grant of 45 per cent of that amount. At the present rate of admissions it will require a similar amount continually to keep pace with this increase unless we do something about it.

THE NEXT LEGISLATURE

Since it is impossible in this brief paper to go into all phases of the necessity of a proper mental hygiene program for this big state, I wish to recommend to all interested workers in this field that steps be taken at once to revive such a movement in time for any legislative measures that might be considered necessary for the next regular session of the State Legislature.

HIGH POINTS IN A SUGGESTED PROGRAM

Some of the high points that would appear to be paramount in such a program are as follows:

1. Educating the public on general mental hygiene lines.

2. Suitable courses in mental hygiene be on the curriculum of certain schools and colleges in the state.

3. Identification of all mental defectives in the state.

4. Registration of all such cases in a given state department, which may or may not exist at present.

5. Supervision of all cases coming within this category.

6. The regulation of marriage in the mentally deficient, insane, and venereal disease cases.

7. Sterilization laws which will permit the operation to be done outside of institutions (bearing in mind that approximately 90 per cent of this misfit group is at large in the communities).

8. Birth control put into effect as was intended when approved by the United States Circuit Court of Appeals in November, 1936.

9. Have a special program covering the social control of the mentally deficient in the state, similar to that being done in South Dakota for the past five years.

10. Establish more special classes within the public schools or more special schools in the larger centers.

11. Establish better segregation in our state institutions for epileptics, defective delinquents, psychopaths, and psychotic children.

12. Construct a psychopathic hospital in the north and one in the south as clearing houses for all cases qualifying for such institutions, which will also give us teaching institutions for the medical colleges of the state, as has already been proposed and is being seriously considered and urged at this time.

13. That mental hygiene clinics be developed on a larger scale or in sufficient numbers to serve the state adequately.

IN CONCLUSION

In closing, I should like to recommend that a permanent state organization be developed at the earliest possible date to work up a detailed program to the extent that will render a decided service in every county and community within the state. Whether this organization be the official body to carry on the work afterward, or whether it be placed in one of the present state departments, like

the Department of Institutions, could be left up to the state-wide organization to decide.

It does seem, friends and coworkers, that with the great increase of mental cases each year, and the present state of our civilization, this mental field is being overlooked, and we should not postpone any longer trying to do more in the preventive field, if ever we expect to improve our race to the point where we can say our people in California surpass those of any other state or country.

Sonoma State Home.

CLINICAL EXPERIENCES AND EXPERIMENTS WITH PROTAMIN-ZINC INSULIN: THE POTENTIAL DANGER OF HYPOGLYCEMIA*†

By James W. Sherrill, M.D.
La Jolla

Discussion *by Howard F. West, M. D., Los Angeles; H. Clare Shepardson, M. D., San Francisco; F. M. Pottenger, Jr., M. D., Monrovia.*

FROM the time of the discovery of insulin by Banting, clinicians have recognized the importance of a modified form of insulin which possessed more permanent and lasting qualities. With this idea in mind many experiments have been carried out, employing various retarding processes such as oil suspension, emulsion, gelatin implants, vasoconstrictor substances, etc. Although commercial insulin serves to bring about certain metabolic alterations in the diabetic individual which closely imitate the normal, these patients are still not entirely controlled from the strict physiological standpoint. In reality, with the rapid postprandial rises in blood sugar which occur in our thoroughly treated diabetic patients, we must admit that they are in an active diabetic state 25 to 50 per cent of the time, even though painstaking methods are employed.

PROTAMIN INSULINATE

It remained for Hagedorn and Jensen at the Steno Memorial Hospital in Copenhagen to offer an insulin compound which can be repeatedly introduced into the human organism and which is so slowly absorbed from the subcutaneous tissues that it more fully imitates the continuous secretion from the normal pancreas. Protamin insulinate, which they described, was obtained by combining an acid solution of insulin with a basic solution of protamin. The protamin which they used had not previously been described, and was obtained from the sperm of the rainbow trout-salmine iridus. Other monoprotamin and triprotamin compounds were tried, but proved to be unsatisfactory on account of their high solubility in the subcutaneous tissues.

ZINC ADDITION

Fisher and Scott found the protamin prepared from Pacific Cohoe salmon, spring salmon, and steelhead salmon as effective a retarding agent as the protamin prepared from rainbow trout. They demonstrated that the addition of a small amount of zinc prolonged the hypoglycemic effect of insulin solution to which protamin had been added. Fresh mixtures of insulin and protamin were not as effective from the hypoglycemic standpoint as those to which a small amount of zinc was added, and allowed to stand for forty hours. Scott and Fisher, at the Connaught Laboratories in Toronto, have experimented extensively with spermin derived from pancreas (and a preparation from thymus glands) as a suitable retarding agent. When combined with ordinary insulin, prolonged hypoglycemic effect was produced similar in nature to protamin. That spermin is a normal constituent of the pancreas was reported by Dudley, Rosenheim and Rosenheim in 1924. They also found that spermin occurred in commercial samples of insulin prepared by the picric-acid method; likewise, that the entire amount of spermin normally present in the pancreas could be recovered from the insulin fraction. The hypoglycemic effect of spermin-insulin compounds was prolonged when zinc was added.

The metal zinc plays an important part in the hypoglycemic action of insulin. Scott and Fisher have shown that with the addition of 0.1 per cent of zinc in the form of zinc chlorid to solutions of insulin the physiological action of insulin was greatly delayed. The blood sugars remained considerably below normal for ten hours or more. Other metals, such as cobalt, potassium, and copper, are not as effective. Zinc-insulin solutions are as effective in properly metabolizing sugar as regular insulin. Maxwell and Bischoff found that by adding basic ferric chlorid to insulin the blood sugars of rabbits and rats could be suppressed to very low levels—as long as eight hours or more. About 20 milligrams of zinc per kilogram are found in the normal pancreas of the bovine, irrespective of the age. The zinc and insulin content of the pancreas of fetal calves is exceedingly greater. Cobalt and nickel are not detected in the pancreas of either. Recently, Gray reported the results of eighteen diabetic patients of various ages treated with insulin tannate solutions over periods of a few days to two weeks. He used a preparation described by Bischoff and Maxwell, which utilized the principle of precipitating protein hormones. The relative insolubility of insulin tannate in the tissues afforded delayed absorption and prolonged liberation of free insulin. Bischoff reported active insulin compounds, using more complex protein precipitants than protamin, viz., histon. Diabetes was successfully controlled when the preparation was used alone or in conjunction with regular insulin. The blood sugar lowering effect and hypoglycemic prolongation were essentially the same as the protamin insulinate controls, using the Hagedorn-Jensen preparation.

LITERATURE ON PROTAMIN-ZINC INSULIN

Joslin and his group treated one hundred cases of diabetes with protamin insulinate up to May, 1936. He summarizes the present status of the new substance very succinctly. "With protamin

* From the Scripps Metabolic Clinic, La Jolla.

Read before the General Medicine Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2-6, 1937.

† References will be given in the reprints.

insulinate the fundamentals of treatment of diabetes are not changed, but the ideals of treatment are more nearly achieved." He confirms the safety of its use, and that the diabetic can be controlled with greater ease. He encourages its use in mild as well as severe cases; the former because there may be the probability of one daily dose sufficing, and the latter because the omnipresent, high, fasting blood sugars can be greatly reduced. Multiplicity of doses in severe cases, likewise, can be reduced in some instances. Moller and Thomsen used protamin insulinate in ten cases with good results. Not only was less total insulin required, but the oscillations of the average diurnal blood-sugar curve was reduced. F. M. Allen calls attention to some of the difficulties arising in the use of protamin insulinate. In severe cases, characterized by labile and fluctuating blood sugars, he encountered the same difficulties in stabilizing the blood-sugar level with protamin insulinate as with the ordinary insulin. The milder the diabetes the easier the control; but in extremely severe cases rapid fluctuations between hyperglycemia and hypoglycemia were uncontrollable, just as has been encountered with the regular insulin in the past.

Protamin insulinate has been shown by Hanssen to be equally effective as regular insulin in its effect upon hepatomegaly, sometimes noted in diabetic children. The enlarged liver became reduced to normal size after several weeks of carefully controlled treatment. Of forty-two diabetic patients under twenty years of age treated by him at Steno Memorial Hospital in Copenhagen, twelve had enlargement of the liver in an uncontrolled state when admitted to the hospital. In five patients the lower border of the liver extended to the umbilicus. After varying periods of treatment with protamin insulinate, ranging from two to seventeen weeks, the liver edge became no longer palpable. Wilder and his associates were successful in controlling the glycemic level in diabetes of varying grades of severity and found they were able to reduce the number of daily injections. The immediate effect of protamin insulin was much less than regular insulin. The pyramiding or cumulative effect of the new insulin was noted. R. D. Lawrence, at King's College Hospital in London, found protamin-zinc insulin of distinct advantage in diabetic treatment and has given us one of the best theoretic discussions of its action to date. Henry J. John has had an exceptional experience in the management of a large series of diabetic children. He reports a reduction in the number of injections, as well as the total unitage, with more satisfactory regulation of the blood sugars throughout the day. Kerr and others confirmed the findings of Root and others that, following the administration of protamin insulin, the blood-sugar curve was not lowered so precipitously as with regular insulin, but sloped more gradually. Also they noted it was less likely to fall below the normal blood-sugar level and rose more slowly to hyperglycemic phases. Bowcock found distinct advantages in protamin insulinate over regular insulin. More perfect regulation of the daily blood-sugar levels was the rule; and insulin reactions fewer and slower in onset.

ADVANTAGES OF PROTAMIN-ZINC INSULINATE

Since November, 1935, at which time we were fortunate in receiving a large supply of protamin insulin through the courtesy of Doctors Hagedorn and Jensen of Copenhagen, we have used various batches and types of insulin in more than one hundred cases of diabetes. Later the Eli Lilly Company furnished us with numerous batches, to which calcium and zinc had been added. We have found that protamin-zinc insulin is of great value in the clinical management of diabetes, and a distinct advance over the former insulin treatment. As a therapeutic agent it has earned a permanent position. The advantages of a more slowly absorbable insulin substance are evident. Not only will the average diabetic profit by the use of an improved insulin, but the advantages accruing to the moderately severe diabetic, with his rapidly fluctuating blood-sugar levels, are manifest. From the theoretic standpoint it may be predicted that, in future years, we will see fewer diabetic complications on the basis of a more stably balanced organism. The possibility of a fewer number of daily injections and the avoidance of insulin shocks will be welcomed by all diabetics.

Several investigators have brought up the question as to whether protamin insulin offers advantages over the regular type of insulin. It is true that many cases remain essentially sugar-free a good portion of the time for many years with regular insulin. It has been our experience that, although sugar freedom in such instances is maintained, there is considerable fluctuation of the blood sugars throughout the twenty-four-hour period, and it is this fluctuation which is more satisfactorily controlled with protamin. One disadvantage of protamin is the peculiar tendency to glycosuria, usually trivial, in the presence of normal blood sugar. This is especially true in the early part of treatment. Further investigation of this peculiar alteration in the renal threshold, whatever this term may imply, is worthy of investigation. The most distinct advantage of protamin over regular insulin is the complete sugar freedom which can be accomplished throughout the night when it is given for the evening injection. The slowly acting insulin exerts a steady downward influence on the blood sugar throughout the night, and the morning fasting blood sugars are low, with the patient aglycosuric. Unless the night doses are unnecessarily excessive, reactions during the night are practically absent. With the regular type of insulin the reverse is true: fasting blood sugars are universally high and the morning urine contains sugar, unless an inconvenient extra dose is instituted at midnight or thereafter.

Recently, we made observations on the reduction in the size of the liver following adequate control of diabetes. The changes which take place in the size, shape, volume, and texture of the liver are astonishing. In one instance the liver was extreme in size, four fingers' breadth below the costal margin, and of firm, unyielding texture. After ten

days of intensive treatment and reduction of the persistently high blood sugars to essentially normal values and complete control of glycosuria, the liver receded two and one-half inches and became soft and flabby, and on manual palpation gave the impression that it had become "deflated." The second instance was that of coexistence of hypertrophic cirrhosis and diabetes. After thorough control very appreciable reduction in the size and firmness of the liver was observed. These two observations encourage us in the belief that the physiological action of protamin-zinc insulin materially assists in instituting more normal metabolic processes in the diabetic organism.

UNSUCCESSFUL CONTROL OF DIABETES IN SOME INSTANCES AND DISADVANTAGES OF PROTAMIN-ZINC INSULIN

With the introduction of any new therapeutic agent there is apt to be a tendency toward overenthusiasm on the part of many investigators. In this country some of the early reports were premature, which encouraged the indiscriminate use of protamin, and sufficient attention was not called to the advisability of preliminary animal experimentation or to the possible dangers which might arise from so powerful an agent. The ease with which death can be produced in dogs, as reported in this paper, bears out this point. Deaths in human subjects have already been reported. The Danish investigators made careful and cautious experiments for two or three years before the first American article was cited. Krarup's excellent monograph, published in 1935, contained detailed reports and protocols of approximately one hundred cases.

Special warning should be given when protamin-zinc insulin is prescribed for an elderly individual with potential or actual coronary and cardiac disease. Diabetes in this group is usually mild and small doses of regular insulin have long been known to affect them greatly. It would be distinctly unwise to permit prolonged hypoglycemia in such cases. F. S. Modern and the writers called attention to the chronic heart pain and anginal attacks produced by prolonged hypoglycemia. It is not difficult to recognize the hazards which might accrue from the chronic hypoglycemia on protamin-zinc insulin, especially since the patient has little warning until the blood sugar has fallen to dangerous levels.

Allen has shown protamin-zinc insulin offers no advantages over regular insulin in severe diabetes. Bertnard Smith also encountered resistance and difficulty in regulating severe cases. In our early clinical experiments we discounted the value of protamin insulin and felt that the claims for it were somewhat overemphasized because we administered it to our severest cases. Its effectiveness is most apparent in mild cases.

One distinct disadvantage lies in its property to produce gain in body weight. Any substance which encourages obesity reduces tolerance in diabetes. We might picture the dilemma which arises when obesity results from protamin-zinc insulin in amounts necessary to adequately control diabetes on a stipulated minimum diet, as opposed to lack of control of diabetes under minimum amounts of protamin, which would not increase the body weight.

Protamin-zinc insulin does not reduce the number of daily injections. In our clinical experiments we devoted a great deal of time and effort in attempts to regulate moderately severe cases of diabetes with one dose of insulin daily. Eight cases were selected and kept in the Clinic under accurate observation for periods ranging from two to ten weeks. In spite of carefully supervised efforts, as well as diligent attention in arranging and administering the injection at various times of the day with reference to meals, we were wholly unsuccessful in standardizing any severely diabetic patient on a single daily dose. Accordingly, we gave up further attempts and have discouraged other inquiring patients in the belief or hope that one dose of insulin daily would suffice. It is only natural that the hope and aspiration of the long-treated diabetic is that any newly discovered preparation would automatically carry with it a lessened demand in the number of injections. Their immediate disappointment as to this feature is offset by their later discovery that protamin assists them in reducing the frequency of reactions, and in the ease with which they can maintain sugar freedom. Mildly diabetic patients may be controlled with one daily dose.

Protamin-zinc insulin offers no advantages in infections, and is not to be depended upon. We have used it in several instances in the presence of fever and found its action most irregular. We have used it successfully for several weeks in two cases of diabetes, with infected bunions, with complete healing and perfect control of the diabetes.

It is no criticism of protamin-zinc insulin that it is not effective in coma or acidosis. The very nature of the substance and its slow availability should discourage dependence upon it when any real degree of acidosis is present. Joslin was successful in completely controlling acidosis in a young boy within twenty-four hours after the initial dose of protamin-zinc insulin. Ketonuria and glycosuria were later abolished entirely.

DURATION OF ACTION OF PROTAMIN-ZINC INSULIN

There are many factors which determine the length of time when the blood sugar remains depressed, chief among which are: the nutritional state of the patient, the thoroughness of the preceding dietary control, and the status of the patient's tolerance. In these regards protamin-zinc insulin does not differ from the regular insulin. In a few instances we have observed an effect as long as thirty-six hours in thin, well-controlled diabetics, while receiving rather low diets; approximating 1,200 to 1,400 calories. From the clinical standpoint, the usual dosage is effective for twelve to sixteen hours under average circumstances. Obesity in the diabetic shortens the period of effectiveness. It has been our experience that the duration of action of protamin-zinc insulin in dogs is more irregular than in man. We have observed

profound continuous hypoglycemia as low as 20 to 30 milligrams per 100 cubic centimeters for periods of thirty-six to forty-eight hours in fasting animals, and, on the other hand, we have observed quick rises in blood sugars in the same animals from similar hypoglycemic levels to normal values at the end of six to eight hours. Protamin insulin, when injected intravenously, gives a response essentially identical with ordinary insulin: the blood sugars fall just as promptly and return just as quickly. The failure to produce delayed reaction when injected intravenously is evidence that the prolonged activity which follows subcutaneous injection depends upon the slow conversion and absorption of the particular suspension in the body tissue fluids.

ARRANGEMENT OF DOSAGE—EFFECT IN COMBINATION WITH REGULAR INSULIN

With two types of insulin at our disposal there is an unlimited number of possible combinations and variations as to the time at which injections might be given. After much experimenting the most satisfactory results were obtained by giving a dose of regular insulin thirty to forty-five minutes before breakfast and protamin thirty minutes before the evening meal. Hagedorn and Jensen recommended this procedure as offering the most effectual management. When the action of the two types of insulin is analyzed, the reasons for selecting this procedure is apparent. Protamin, when injected before the evening meal, is successful in carrying the patient through the night with low blood-sugar levels. Its effect is still in evidence at the time of the breakfast and noon meals, and usually later the following day. The addition of quick-acting insulin before breakfast is then sufficient to take care of sudden elevations in blood sugar which arise from the free, available carbohydrate of the breakfast and noon meals. With this method the combined effect of the two insulins continues to exert an influence until the protamin is administered again the following evening. In properly controlled cases, it is not uncommon to encounter reactions at 4 or 5 p. m., in which event we have made satisfactory adjustment by delaying the protamin until thirty or forty minutes following the evening meal.

After our unsuccessful attempts with a single daily dose, we next tried the procedure of giving both types of insulin before breakfast, each injected separately, but we abandoned this method. The combined materials caused severe reactions about noon on account of the overlapping effect, and the lasting effect of protamin did not persist until the following morning.

We administered the regular insulin before the evening meal and protamin before breakfast in six cases, but without success. Severe reactions occurred from 8 to 10 p. m. on account of the combined action of the two insulins, and glycosuria appeared all too frequently during the day because the slowly acting protamin was not sufficiently responsive to offset the effect of the morning and noon meals. We have used protamin both morning and night in several severe diabetics with splendid results.

For patients who previously were under control with regular insulin, protamin insulin substitution can be made promptly without affecting the patient's clinical course, except that there may be a tendency to glycosuria the first few days until the delayed effectiveness of the new material evidences itself. We have found it satisfactory to substitute the usual night dose of regular insulin with the same number of units of protamin in well-controlled cases. A 10 per cent increase for the first three or four days often offsets the temporary glycosuria noted.

Rarely is it necessary or practical to give more than two doses of insulin daily whether protamin or a combination of the two insulins. The total insulin unitage is less when protamin is used.

SELECTION AND ARRANGEMENT OF THE DIET FOR THE DIABETIC

Protamin insulin has not changed materially the character of the diets which we formerly employed, except that in well-controlled cases we have been able to increase the total carbohydrate. A much wider latitude is permitted in the selection of higher carbohydrate foods. It is not the purpose of this paper to discuss the relative merits of high carbohydrate or high-fat diets as recommended by various authorities. We have continued to employ relatively low calory diets with carbohydrate allowances as liberal as the patient's tolerance will permit; usually twice as much carbohydrate as fat. High-fat diets are not to be countenanced. Theoretically, the use of a liberal amount of fat or a high-fat diet to produce a more sustained action in the blood sugar would be favorably indicated by reason of the slowly acting protamin-zinc insulin. In any event we should be cautious in advising more than 100 grams of fat in any diet. The insulin requirement, just as in the past, is proportional to the caloric value of the diet, as well as with the carbohydrate allotment. Higher insulin requirements prevail in the obese patients, in which instances we have employed low calory, low-fat diets to bring about reduction of body weight and better diabetic control.

The distribution of the food between the various meals of the day is important. We prefer to distribute the food more or less equally among the morning, noon, and evening meals; except that the total food value of the breakfast may be slightly less than the remaining meals if the patient so elects. If the regular type of insulin is employed for the morning dose, it may be unwise to permit a reduction in the breakfast, otherwise reactions may occur before the noon meal, irrespective of the kind of insulin or the dosage. We have not been successful in the suggested practice of giving a light evening meal on the basis that the evening dose of slowly acting protamin insulin would permit glycosuria in the early part of the night. Also, we have not found it necessary to shift the meals to earlier or later hours.

TABLE 1.—*Protocol of one of six experiments which we have conducted in dogs, showing the danger which follows prolonged hypoglycemia. Death has occurred in each instance if the blood sugar remains depressed for any appreciable length of time. The animals die in spite of restoration of the blood sugar to preliminary levels, and in spite of adequate water and carbohydrate administration. As to whether this phenomenon is confined to the canine species is not known.*

Date	Time	Hours Elapsed	Blood Sugar Milligrams Per 100 cc.	Protamin-Zinc Insulin Units	Remarks
March 31, 1937	10:30 a. m.		61.3		
	10:35 a. m.			40	
	5:00 p. m.	6			
	5:30 p. m.	7			First convulsion
	12:00 p. m.	13			Comatose
April 1, 1937	9:15 a. m.	23			Semi-conscious, but prostrate
	9:15 a. m.	23	36.1		
	9:30 a. m.	23		20	
	9:35 a. m.	23			500 cc. water by stomach tube
	10:00 a. m.	23			Thrashing about cage
	10:30 a. m.	24			In total coma; occasional jerk
	12:00 m.	25	27.9		In coma, but vena puncture painful
	5:30 p. m.	30	22.2		
	5:45 p. m.	30			500 cc. 10 per cent sucrose by stomach tube
April 2, 1937	12:30 a. m.	38	27.5		Comatose
	12:45 a. m.	38			500 cc. 10 per cent sucrose; 1 per cent NaCl stomach tube
	9:30 a. m.	47	72.5		Comatose
	12:30 p. m.	50	52.3		
	12:35 p. m.	50			Semi-conscious, but cannot be aroused
					Given 500 cc. 10 per cent sucrose
	6:00 p. m.	55	66.5		Prostrate but kicking
	8:30 p. m.	57			500 cc. 10 per cent sucrose and 1 per cent NaCl by tube
April 3, 1937	9:30 a. m.	71	40.5		Given 500 cc. 10 per cent sucrose by stomach tube; complete coma
	11:30 a. m.	73	66.5		Died

CHARACTER OF HYPOGLYCEMIC REACTIONS

The symptomatic as well as the objective manifestations of hypoglycemia with protamin-zinc insulin are distinctly different from those noted when regular insulin is used. Reactions occur with less ease and frequency, and by the same token persist longer and are more difficult to overcome. After a brief period of experience patients soon recognize the new prodromes of reaction which they can quickly offset. They are given a longer period of warning. One of the most striking features we have noted is that patients may be entirely oblivious to existing low blood-sugar levels for many hours, and are not disturbed in the slightest. It is not uncommon to note hypoglycemia of .050 per cent without evidences of reaction. The reason for this peculiarity is explainable on the basis that there is a known relationship between the rate of the fall of blood sugar and the suddenness of reaction. With quick-acting insulin the sudden reduction of the blood sugar from precipitous heights to lower levels, approximately .070 per cent, is followed immediately by the well-known symptoms of sweating, tremor, palpitation, etc. Such symptoms have been attributed to the sudden protective mobilization of adrenalin. With protamin-zinc insulin the blood-sugar level is so slowly and gradually reduced that the buffering response of adrenalin is not called upon, and the usual vasomotor reactions are not experienced. In 1933, Jordan called our attention to the neurologic manifestations which may accompany hypoglycemia in diabetic patients. He recorded no less than fifty signs and symptoms in proved instances ranging from sweating and tachycardia to epileptiform seizures and transitory hemiplegias. Peculiarly, all of the manifestations are related to the nervous system. With protamin-zinc insulin a different symptom-complex is noted. The most common complaints are drowsiness, vague, mental confusion, lassitude, and hunger. Sweating, palpitation, and tremor are rare. We have observed many patients to lapse into complete stupor and unconsciousness as the first symptoms.

Following the onset of hypoglycemia, particularly of any severity, liberal amounts of carbohydrate must be administered, and due care and caution must be exercised unless the patient may relapse again. In a few instances the reactions have been so persistent that three or four successive doses of carbohydrate have been required within an hour's time to return the blood sugar to a permanent normal level. With the regular type of insulin the administration of one carbohydrate feeding was usually sufficient to counteract the freely circulating insulin. With protamin-zinc insulin, however, it is to be remembered that the insoluble insulin compound remains stored in the subcutaneous tissues as a reservoir and continues to be released into the body fluids and blood stream. Muscular exercise increases the patient's susceptibility to reactions.

POTENTIAL DANGERS ASSOCIATED WITH HYPOGLYCEMIA

Insulin reactions are apt to be more frequent when commencing therapy with protamin-zinc insulin, and when they occur later are more severe than with ordinary insulin. The possibility of the use of excessive doses of this new slower-acting compound by untrained individuals, because of the lack of immediate results or the accidental administration of the concentrated precipitate from a vial which has not been agitated, make a knowledge of the effects of hypoglycemia due to insulin shock

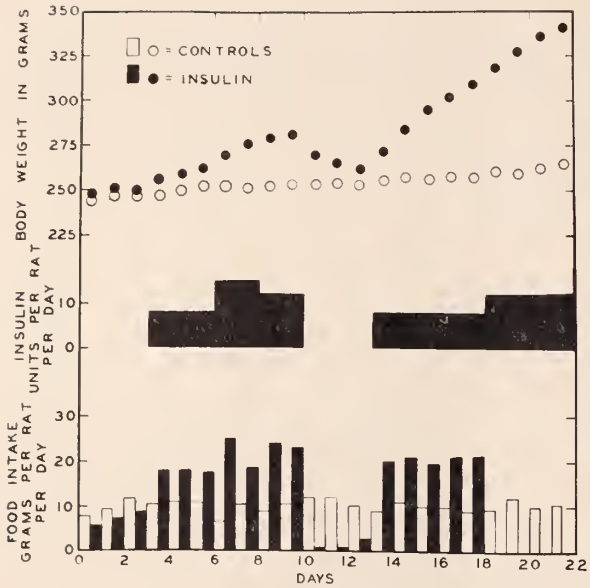


Fig. 1.—Composite curves of the body weight changes young adult rats, following the administration of protamin-zinc insulin. These experiments are being conducted by Doctors MacKay and Callaway. Note the increase in body weight on the fourth to the tenth and fourteenth to twenty-second days, inclusive, while receiving protamin-zinc insulin. The food intake was practically that of the controls. Note the sudden fall in weight when the insulin was stopped during the eleventh to thirteenth days, inclusive. The caloric intake on these three days was trivial.



Fig. 2.—In the above illustration the effect of hyperalimentation, following the use of protamin-zinc insulin for sixteen days, is well shown. These experiments are being conducted by Doctors MacKay and Callaway. Six young adult litter mates were used. Each of the rats on the right received 8 to 12 units daily. Food was furnished ad lib to controls and subjects. The average weight of the controls rose from 238 to 262 grams, while the insulin subjects increased from 242 to 344 grams. The locomotion of the fattened group was seriously interfered with.

essential. Attention is called to the recent work of Sherrill and MacKay, in which normal dogs die following prolonged hypoglycemia from a single or several injections of protamin-zinc insulin. (Table 1.) Heretofore it has been generally assumed and recognized that the hypoglycemia resulting from the use of regular insulin has proved entirely harmless if the blood sugar is returned to normal by the administration of carbohydrate or other food. No deleterious, residual injuries have been noted in man or animals. We have found that when fasted dogs are kept in hypoglycemic shock with occasional convulsions for twenty-four hours or more, some organic change is induced which prevents recovery and results in death, even though the blood-sugar level is restored to normal and the fluid balance is adequate. We have used six normal dogs for experiments and death has resulted in each instance. As a rule we have given a single injection of approximately one-half unit of protamin insulin per pound of body weight. Subsequent smaller doses may be required to produce prolonged hypoglycemia. These dogs have been kept in stuporous or comatose condition with blood-sugar concentration ranging from 20 to 30 milligrams per 100 cubic centimeters for twenty-four to forty-eight hours. Carbohydrate was then administered either intravenously or by stomach tube, and the blood-sugar concentration raised to normal until death ensued. None of the animals regained consciousness. Some tissue or organ is apparently so damaged by the hypoglycemia or related reduction in glycogen content, that death ensues, probably due to failure of the vascular system. No gross pathological lesions in the visceral organs or brain have been noted. Further experiments are in progress to determine the mechanism of this deleterious effect of insulin shock and the minimum duration of hypoglycemia which is dangerous.

As to whether the pathological lesions or chemical alterations which cause death in the dog are similar to and can be reduplicated in man, is open to question. Nevertheless, admonition at this time is expedient. In view of the various clinical applications to which insulin is being subjected in recent years, referring particularly to the work of Sakel, in which prolonged hypoglycemia is advocated in the treatment of schizophrenia, it may be that contradistinction must be made between regular insulin and protamin insulin. Authentic deaths have been reported in the past following the use of regular insulin, but only in extreme instances, and protamin may be no exception in this regard. Although the above animal experiments are convincing, hasty, adverse conclusions should not be arrived upon, which might deprive the diabetic patient of the benefits which may accrue from protamin insulin.

PROTAMIN-ZINC INSULIN AND FAT METABOLISM

Ordinary insulin has been used for a number of years to aid undernourished, nondiabetic individuals to gain weight. Pitfield, an American pediatrician, in 1923 first suggested its use in nondiabetic infantile inanition. It has been used in the management of pulmonary tuberculosis as a means of improving the nutritional state. As with many such clinical observations, it has never been clear that the insulin itself, and not one of the supplementary measures, was responsible for stimulation of the appetite in successful cases. Experiments with normal animals have always given negative results. In experiments, which are being conducted by Doctors MacKay and Callaway at this clinic, they have found that protamin-zinc insulin, in contradistinction to the ordinary product, produces a startling increase in the food intake and body weight of normal rats (Figure 1). The voracious-

ness with which they devour food and the rapidity with which fat is deposited throughout the whole body structures is astonishing. Figure 2 shows this remarkable hyperalimentation. The effect is produced by protamin-zinc insulin in doses of thirty or more units per kilogram body weight twice a day. It is proportional to the dose of insulin and presumably the degree of decrease in the blood-sugar level. When the insulin administration is stopped, there is a compensatory decrease in food intake, for they were already of normal weight when the weight gain started. Their growth rate is not influenced. This suggests that whatever good results ordinary insulin may have in human undernutrition, the protamin compound should prove much better. We have used protamin insulin in several patients with chronic undernutrition with considerable success. The immediate hunger which occurs with the onset of hypoglycemia in the beginning is very striking. Gain in weight occurs promptly. For some unexplainable reason subsequent hypoglycemia fails to produce hunger as effectively, and patients seem to establish a tolerance or resistance to the hunger mechanism. Nevertheless, if the dosage is kept sufficiently high, results are obtained. It is necessary and important to insist upon doses sufficiently large to lower the blood sugar to levels at which hunger might be expected, viz., 70 milligrams per 100 cubic centimeters or less. The character of the food used to offset hypoglycemia is important. We have found that the weight and nutrition is improved faster if the more complex forms of carbohydrate are used, such as bread, rather than candy, sugar, etc. When treatment is continued for several weeks, patients complain that their taste and appreciation of food tends to diminish. The use of protamin insulin in many clinical disorders in which the nutrition is poor deserves consideration. From our limited clinical experience thus far, it appears that protamin insulin is specific in producing hunger. This is not true of the regular insulin previously used, since various manifestations, such as sweating, faintness, or collapse, commonly appeared as the first indication of hypoglycemia, and in a large percentage of cases hunger was never experienced. Hypoglycemia alone does not account for the peculiarly rapid process by which the excessive adipose tissue is deposited. Protamin insulin induces some alteration in the fat metabolism whereby the rapid storage is induced.

Scripps Metabolic Clinic.

DISCUSSION

Howard F. West, M. D. (1930 Wilshire Boulevard, Los Angeles).—It is too early to be dogmatic in a discussion of the application of protamin insulin to the clinical treatment of diabetes. At this date one can give only impressions gained from a relatively short period of observation with the preparation as finally modified.

In an experience with approximately three hundred patients, my associates and I have arrived at certain tentative conclusions. While in the main we are in agreement with the observations presented by Doctor Sherrill in his paper, certain points relative to the use and action of this drug seem worthy of emphasis. The prolonged duration of its effect will prove of great benefit to many patients. The rapidly fluctuating blood sugar levels of many individuals using the original insulin has been a serious clinical problem throughout its period of use. This has applied especially to the so-called insulin-sensitive group, with whom compromises have had to be made between periods of glycosuria, hypoglycemic reactions and multiple dosage. To this group, especially, the more slowly acting preparation is proving to be of the greatest value, and a definite improvement can be noted in those of this group who have had sufficient time to make proper adjustment.

Individual adjustment of dosage and time are of paramount importance in the establishment of optimum control. There seems to be considerable variation in the rate of absorption and the duration of the insulin effect in different patients. The technique of injection would appear to have an important bearing upon this point. The patients must be instructed to inject the insulin into the areolar tissues, well beneath the subpanicular fat, as local swelling is apt to occur, and solution and absorption are inefficient if the injection is made too near the surface of the skin. It is also of great importance to see that the site of the injection is constantly changed. The size of the dose would seem to have a bearing upon the absorption rate, absorption decreasing as the amount of injected fluid increases. A short period of observation with U-80 protamin insulin, released so far for clinical trial only, leads us to believe that much of the difficulty with larger doses may be overcome. With those patients who have moderately severe diabetes, and especially those who have been taking the old insulin for some time, considerable patience must be shown before good adjustment on protamin insulin is obtained. Weeks or even months may elapse before a finally satisfactory degree of control is obtained. This period of adjustment is of paramount importance, and has a definite bearing upon the problem of dosage.

Contrary to the opinion expressed by Doctor Sherrill, it has been found in our experience that a considerable number of these patients do eventually arrive at the point where a single daily dose is adequate. During the transition period we have found a combination of the old and new insulin, both doses being given separately in the morning, to be the most useful method. A relatively small dose of old insulin before breakfast controls the first period of the day, the more slowly acting protamin insulin taken usually after breakfast controlling the late afternoon and night. Only a very few of our patients receive two daily doses of the protamin preparation. Practically all of the milder cases, and those in which insulin has not been used previously, can be started on a single daily dose of protamin insulin, provided there are no complications such as infections or acidosis, and the total diet is kept at a conservative level. The duration of insulin effect for fully twenty-four hours has been repeatedly shown by many of our patients, manifested either by mild hypoglycemic reactions shortly before the following breakfast or by low-fasting blood sugars.

Contrary to popular opinion, hypoglycemic reactions after protamin insulin must be expected, and even more carefully avoided than those resulting from unmodified insulin. They are slower in onset, the symptoms are more insidious, they are more prolonged and occur at a much later period. Because of these characteristics they are apt to develop while the patient is asleep, and, since the familiar warning symptoms of palpitation, sweating, and tremor may not occur, the patient may not be awakened in time to prevent rather profound symptoms. That considerable danger may be attached to these reactions is illustrated by the experience of two patients admitted to my service at the Los Angeles County General Hospital.

One, a woman, forty-six years of age, with arteriosclerotic complications, was unconscious for five days. During this period she manifested indications of profound irritation of the cerebral cortex without paralysis or other definite localizing signs. Even after recovering consciousness, she remained mentally confused for two months. According to the history obtained from her physician, the reaction developed at about 2 a. m. following a morning dose of only twenty-seven units.

The second patient was an alcoholic who, during a debauch, was living alone in a hotel. His sister stated that, in spite of arguments to the contrary, he had insisted that insulin was necessary to completely utilize his alcohol even though no food was taken. He was found unconscious in his room and died a few minutes after reaching the hospital

by ambulance. The blood sugar on entry was 45 milligrams per cent. The brain was preserved for special study and the report is not yet available. There were no other definite findings at autopsy to explain the cause of death. It must be admitted that this death might just as well have been caused by the unmodified insulin if used in the same careless manner.

While this new preparation offers certain distinct advantages in the treatment of diabetes, much remains to be learned regarding its effects and its indications. Many patients may do equally well or even better with the old insulin. Experience has demonstrated that it must be used with great care.

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H. Clare Shepardson, M. D. (384 Post Street, San Francisco).—Confidence in the effects of a new therapeutic agent is attained only after proper evaluation of the experiences of various investigators who have made exhaustive studies concerning the detailed actions of such an agent. Consequently, due cognizance should be taken of each article covering the use of protamin-zinc insulin.

Doctor Sherrill has given a concise report of his results with this material. Thorough analysis indicates his experiences parallel those of other workers, with certain rather minor exceptions.

At the University of California Out-Patient Department we have found a much greater benefit accruing to the severe diabetic, who by the use of long acting insulin is maintained under better control, than was possible using regular insulin. In our group of severe diabetics we have been able to reduce the daily dosage (units of insulin per day) of insulin 30 per cent, and the number of daily injections to two daily. Furthermore, the number of uncontrolled cases has been reduced 50 per cent. In no instance has it been necessary to give more than two injections of protamin-zinc insulin daily, and usually one dose of protamin-zinc insulin and one of regular insulin suffices to control the moderate-to-severe diabetic. This is the patient who formerly had to subject himself to oft-repeated injections of regular insulin to insure reasonable control of the disease.

We were unable to observe any essential change in the insulin dosage or degree of control in patients with mild diabetes, but it was possible, in this group, to reduce the number of daily injections by one-half, with the large majority taking only one injection daily. Also no appreciable lowering of the total daily dosage was possible in the group with moderately severe diabetes, but there was a reduction of 26 per cent in the number of daily injections. And the number of uncontrolled cases in this group was reduced to 25 per cent of the previous number.

There are many factors, of course, which influence the results obtained in various clinics. Thus the manner in which patients follow a prescribed routine, and the attention given in the explanation of details in therapy to the patient, can account for rather wide variations in the results obtained. It is our belief, however, that protamin-zinc insulin represents a decided step forward in diabetic therapeutics, and that the benefits obtained are in direct proportion to the severity of the diabetes.

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F. M. Pottenger, Jr., M. D. (Pottenger Sanitarium, Monrovia).—Although protamin insulin apparently possesses certain drawbacks, I wish to speak of a class of patients who have both severe diabetes and tuberculosis, and who require not the 10 to 20 units of insulin a day, spoken of by Doctor Sherrill, but from 80 to 100 units and even 150 units or more to control their diabetes. In such patients we have been able to reduce the number of injections from 4 or 5, to 1 or 2 in twenty-four hours. We have also experienced a much better control of our diabetics than we formerly had. This particularly applies to the exacerbations of the diabetes which follow the exacerbations in tuberculosis so commonly experienced by these patients. Some of these patients using the ordinary insulin have been prone to have extremely high early morning, and extremely low afternoon blood sugars. A satisfactory control of these cases is very difficult to obtain; but by substituting protamin insulin for the ordinary insulin, exacerbations, both tuberculous and diabetic, tend to be less severe and more easily controlled. Protamin insulin apparently gives these patients a better tone to their heart muscles, as evidenced by the almost universal drop in the pulse of 10 to 20 beats.

In spite of the great advantages, however, there are some drawbacks which complicate the administration of protamin insulin. In one instance we have seen insulin remain in the tissues and form nodules; then, all of a sudden, the insulin was released, causing a prolonged hypoglycemia.

CREATINURIA OF CHILDHOOD*

WITH SPECIAL REFERENCE TO BONE AGE

By E. Kost Shelton, M.D.
AND
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Los Angeles

Discussion *by H. Lisser, M. D., San Francisco; Howard L. Eder, M. D., Santa Barbara; Willard E. Kay, M. D., San Francisco.*

CREATINURIA is normally present in childhood.[1] The absence of this phenomenon in cretinism and in childhood myxedema has recently been reported.[2,3] In such children the administration of thyroid causes a prompt appearance of creatin in the urine. Injection of the thyrotropic fraction of the anterior pituitary into animals with intact thyroid glands also enhances creatin excretion.[4] These observations are consistent with the augmentation of urinary creatin in adult hyperthyroidism, and of its diminution or suppression following restriction of thyroid function.[5,6]

Retardation of bone development in cretinism and in childhood myxedema is a well-established fact and one of proved value in differentiating such severe subthyroid states from other forms of mental defectiveness, mongolism, etc. In the less classical forms of hypothyroidism, marked retardation of bone development offers a valuable aid in diagnosis.[7,8] The response of these children to thyroid administration is too remarkable to be anything but specific. There remains a third and larger group, with moderately retarded bone age, who, although suffering from some disturbance of somatic development, present difficulties in diagnosis. The possibility of a borderline subthyroid state in a percentage of these children cannot always be excluded. However, other hormone influences, as well as nutritional, infectious, congenital or constitutional factors, undoubtedly contribute to the formation of this group. The present study was designed to throw more light on the indeterminate case.

DIVISION OF THE STUDY

The study was divided into two main parts:

1. An estimation of creatin excretion on admission in (*a*) clinically verified hypothyroid children with markedly retarded bone age; (*b*) in children with moderately retarded bone age in whom the thyroid status was unknown; (*c*) in children with normal bone development.

* From the Shelton Clinic, Los Angeles.

Read before the Pediatric Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

The expense of this investigation was defrayed by a fellowship from the St. Francis Foundation for Clinical Research, Santa Barbara.

TABLE 1.—*Averages of Duplicate Analysis of Creatin on Each of Two Successive Days*

Name	V. L.	A. C.	A. S.	H. J.	P. M.
First day	330 ±24	54 ± 9	142 ±36	16 ±12	150 ±10
Second day	193 ±20	118 ±40	57 ±30	20 ±30	70 ±30

2. An estimation of creatin excretion on admission, as compared with the creatin excretion following certain therapeutic regimens. In this last study the children were selected at random—that is, without reference to thyroid status or bone age. The therapeutic regimens were as follows: (*a*) Ten children were given U. S. P. desiccated thyroid† (uncoated) one-half grain daily, for three months. (*b*) Ten children were given Lugol's Solution, ten drops twice daily, for two weeks. (*c*) Eighteen children were given cod-liver oil and iron (one dram twice daily, total iron content, seven grains). (*d*) Nineteen children were given no medication, but received the basic well-balanced diet, sunshine, rest, and good nursing care common to all. The difference between admission and final creatinuria in the last group served as a control.

CLINICAL MATERIAL FOR THE STUDY

Studies were undertaken on fifty-six children between the ages of six and thirteen, all but four of whom were admitted to a preventorium during the past year for the purposes of physical betterment. The reasons for admission to the preventorium consisted of one or more of the following complaints: (1) Underweight. (2) Poor resistance to respiratory infections. (3) Contact with tuberculosis. Acute illness or active chronic illness was present in no instance. There were twenty-seven boys and twenty-nine girls. Bone age was unknown prior to admission, but was determined roentgenographically on entry, using the status of the carpal and elbow development as criteria. Bone retardation as here defined implies a delay in osseous development of two years or more, as compared with chronological age, according to the standards at our command.[9] The general agreement, in reading the roentgenograms (within one year) between the two most experienced observers, was gratifying.

All children were under observation for at least three months. A complete physical examination, blood count, urinalysis, Wassermann and tuberculin test were performed on entrance. Pulse and temperature readings were periodically recorded, and the presence of even a minor infection was considered an indication to postpone the collection of urine for study. Excellent nursing supervision was provided, assuring the complete collection of urine and the maintenance of standard environmental conditions. During periods of collection the children were restricted to bed rest, but were permitted to sit up in bed and play. A meat-free diet was maintained, although eggs and milk were permitted. In every instance, a preliminary day on the above regimen was observed before the urine collection was initiated.

† Supplied through the courtesy of Armour & Company.

METHOD

Creatin was determined by the method of Folin[10] and values expressed in terms of milligrams equivalent of creatinin excreted in twenty-four hours. Determinations were made at first in duplicate, but this practice was discontinued when it became evident that fluctuations from day to day appeared to exceed variations in duplicates of a single day. (See Tables 1 and 2). When more than one determination was made within a two-week period, the values were averaged and the single figure recorded in tables 3, 4 and 5. Two hundred determinations were made in all. The urine was also routinely examined microscopically and for sugar. A known solution of creatin (one gram per liter) was made and determined concomitantly with the unknowns to serve as a control on the accuracy of technique. In calculating the averages, probable error, and the significance of the deviation between the two averages, standard statistical methods were employed.[11,12]

RESULTS

Table 3 presents creatin values obtained on admission and following the various regimens, on all of the fifty-six children. Those presenting bone retardation, as here defined, are marked thus (*). Clinically verified hypothyroid cases (all of whom had severely retarded bone age) are marked thus (†). The sex is denoted. The ages between six and thirteen are fairly evenly distributed, but are not denoted because the number in each group is insufficient to be conclusive as regards the influence of the age factor. In both the normal children and those manifesting bone retardation, however, an increased creatinuria, with increase in age up to puberty, is suspected.

Table 4 presents the averages (values of urinary creatin on admission only) of each of the three groups in the first study, *i. e.*, those with clinically verified hypothyroidism and markedly retarded bone age; those with retarded bone development, whose thyroid status is unknown; and those considered normal as regards bone age. While sex was ultimately discovered to have little effect on the

TABLE 2.—*Fluctuation of Creatin Determined in Singles on Five Successive Days*

Name	First	Second	Third	Fourth	Fifth
T. S.	206	156	258	243	372
R. S.	214	212	150	107	68
N. C.	240	317	259	367	240
V. D.	226	199	230	147	149
J. R.	65	265	139	264	292

TABLE 3.—*Creatin Excretion on Admission and Following Therapy*

Name	Sex	Bone Age	Creatin on Admission	After Three Months No Medication	Name	Sex	Bone Age	Creatin on Admission	After Three Months Cod Liver Oil	Name	Sex	Bone Age	Creatin on Admission	After Three Months Thyroid	After Two Weeks Lugols
B. K.	M.		390	115	D. U.	M.		99	208	D. V.	M.		45	128	
B. C.	M.		208	150	B. A.	M.		60	138	G. T.	M.	*	165	117	
E. T.	M.	†	76	312	B. R.	M.	*	288	242	F. S.	M.	*	130	23	
F. G.	M.	*	109	230	R. B.	M.	*	187	140	J. P.	M.	*	218	14	
J. R.	M.	*	80	256	I. P.	M.	*	252	175	J. S.	F.	†	81	182	
E. G.	M.		160	114	J. R.	M.		325	76	R. O.	F.	†	76	145	
H. F.	M.	*	305	418	E. G.	M.	*	137	171	R. D.	M.	†	78	146	
E. D.	F.		321	378	L. R.	F.		45	210	H. J.	F.	†	22	82	
M. M.	F.		70	200	E. W.	F.		60	180	E. S.	F.		80	174	
M. K.	F.		67	280	T. S.	F.		170	210	M. M.	F.		70	145	
J. R.	F.		80	256	D. S.	F.		198	164						
E. L.	F.		138	450	D. R.	F.		60	215						
B. P.	F.		120	187	E. L.	F.		294	192						
C. J.	F.		195	165	G. F.	F.		192	308						
G. E.	F.		215	238	M. C.	F.		38	198						
P. B.	F.	*	104	156	R. V.	F.		126	420	B. C.	M.		179		594
M. W.	F.	*	161	232	G. E.	F.		227	72	G. V.	M.		140		76
L. C.	M.	*	235	100	D. B.	F.	*	98	237	E. C.	M.		270		112
E. L.	F.		138	450	C. G.	F.		108		E. S.	F.		80		513
B. N.	M.	†	20		A. M.	F.		210		M. M.	F.		133		105
T. C.	M.		45		E. L.	F.		240		J. R.	F.		168		264
R. R.	M.	*	140		M. P.	F.		115		V. L.	F.		137		374
Q. L.	M.	*	188							D. D.	F.		189		242
A. O.	F.		270							N. P.	F.		224		440
L. F.	F.	*	50							C. J.	F.		180		506

*Moderately retarded bone age.
†Severely retarded bone age (clinically verified hypothyroid).
F. Female.
M. Male.

level of creatin excretion (Table 5), girls, on the whole, excreting a little more than boys, it should be explained that all except the clinically verified hypothyroid children in this (first) study were male. The retarded boys excreted, on the whole, much more creatin than those in the normal or control group, the difference approaching statistical significance. In the verified hypothyroid group, girls were included because of the dearth of material. In spite of the sex trend, as previously stated, the average for this group is considerably below that for the normal, and that for the boys presenting bone retardation. The difference between these averages is statistically significant. In order to obviate confusion, it should be remembered that the clinically hypothyroid children all had severely retarded bone development, but are not here included or considered in the retarded bone-age

TABLE 4.—*Mean of Creatinuria on Admission in Verified Hypothyroid, Normal, and Bone Retarded Children*

Group	Number Cases	Mean	P. E. M.*	Deviation†	Significance‡
Hypothyroid	6	59	± 7	64	3.1
Normal	8	123	±19	70	2.8
Retarded	15	193	±16		

* Probable error of mean.
†Deviation between the two means.
‡Significance of deviation = $\frac{\text{Deviation}}{\text{P. E. of deviation}}$

group. When all of the fifty-two (preventorium) children are considered, the same trend of increased creatin values may be seen by a shift of the curve of the retarded bone-age group to the right (Chart 1).

Table 5 summarizes the effect of therapy on creatinuria or the outcome of the second phase of this study. Some increase in creatin excretion appeared following cod-liver oil and thyroid. The magnitude of this increase is, however, not statistically significant, and falls within the same range as the increase in the control group under excellent hygienic care, but not subjected to medication. Therapy with Lugol's Solution, however, almost doubled the creatin excretion and is statistically significant.

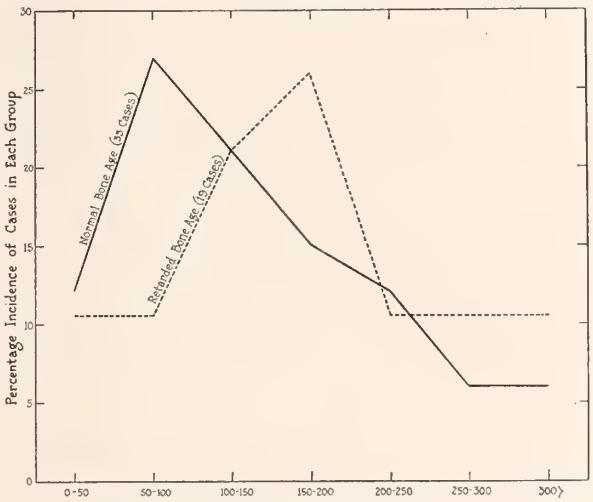


Chart 1.—Creatin excretion, milligrams, in twenty-four hours. Distribution curve of creative values for normal children and for children with retarded bone development.

COMMENT

Of fifty-two children (about equally divided as to sex), ranging in ages from six to thirteen, in whom creatin studies were carried out, nineteen (or 36.5 per cent) were found to be retarded two years or more in bone development. This figure is approximately 23 per cent higher than that observed by Shelton in 560 unselected public school children.[8] The difference is perhaps to be expected, since all of the fifty-two children were admitted to the preventorium for correction of underweight and other physical inadequacies. In this group, retardation of bone development was found to be four times more common in boys than in girls. This is in agreement with previous findings.

The finding of an increased creatinuria in children presenting bone retardation suggests that hypothyroidism is not the underlying factor, since in clinically verified hypothyroid children, also presenting bone retardation, diminished creatin excretion is discovered. Nor can one explain the increased creatinuria in the former on the basis that the retarded child is physiologically younger, since from this study the impression is gathered that younger children excrete less creatin than those approaching puberty. The difference apparently depends on a qualitative, rather than a quantitative factor. One may infer that the increased creatinuria, in the presence of bone retardation, is due to an inferior musculature, *i. e.,* a concept applied to muscle dystrophies and borne out by the fact that creatinuria is augmented in hyperthyroidism with increasing muscular weakness.[13-15] This concept may be permissible, since retarded skeletal development implies a poor musculature, and vice versa. Be that as it may, in the presence of a moderate degree of bone retardation and an indeterminate clinical picture, the finding of a diminished creatin excretion suggests that hypothyroidism may be the causative factor. Under such circumstances a prolonged therapeutic trial with thyroid is indicated. If, in a similar patient, the creatin excretion is discovered to be increased, it may be taken as evidence against the diagnosis of hypothyroidism. In all instances the spontaneous variability in creatin excretion from day to day cannot be stressed too strongly, and a number of creatin determinations on different days is recommended.

In the second part of the study, all forms of therapy led to some increase in creatinuria; yet the response to cod-liver oil and to thyroid appeared no greater than to a well-balanced diet, sunshine, and good nursing care without medication. In view of the observations of others, namely, that thyroid administration to cretin children results promptly in an increase in creatin excretion, the figures here presented may appear at variance. We feel, however, that the studies are not comparable. In the hands of others, thyroid administration led to prompt creatinuria in hypothyroid children. In this study our observations were not made promptly after the administration of thyroid, nor did our group of ten represent exclusively hypothyroid children. The six clinically verified hypothyroid children under observation did show a substan-

Table 5.—*Influence of Medication on Creatinuria (Without Reference to Bone Age or Thyroid State)*

Number Cases	Sex	Mean on Admission	No Medicine (Control)	Three Months Cod Liver Oil	Three Months Thyroid	Two Weeks Lugols	Significance
8	Male	123 ±19					
25	Female	148 ±12					1.1
19	Both	181 ±15	218 ±18				1.6
18	Both	165 ±15		199 ±15			1.6
10	Both	97 ±10			116 ±10		1.4
10	Both	180 ±14				327 ±39	3.4

tial increase in creatin excretion following thyroid treatment.

CONCLUSIONS

1. In clinically verified hypothyroid children (all of whom presented severely retarded bone development) the finding of diminished creatinuria is confirmed.

2. In children presenting an indeterminate clinical picture (accompanied by retarded bone development) increased creatinuria was found.

3. Administration of iodin to children (unselected as regards thyroid status or bone development) caused a significant increase in creatinuria.*

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DISCUSSION

H. Lisser, M.D. (384 Post Street, San Francisco).—Efforts to utilize sundry laboratory procedures to render more precise clinical diagnoses of endocrinopathies are commendable and desirable. In this connection it is hoped that researches now in progress, aiming to assay hormones quantitatively in blood or urine, etc., may eventually prove helpful in differential diagnoses of amenorrhea, infantilisms, virilisms, precocity syndromes, hypertensions and disturbances in calcium and carbohydrate metabolism.

Accordingly, Doctor Shelton deserves credit for this painstaking attempt to evaluate the significance of increased or decreased creatin excretion in dubious or borderline instances of childhood retardation. His results seem to indicate that the particular group of problem cases he studied could be excluded from a hypothyroid status by reason of increased rather than decreased creatinuria.

Doubtless, Doctor Shelton would not wish to give the impression that he considers a single laboratory test sufficient to establish a diagnosis; for example, one may encounter a diminished basal metabolic rate occasionally in hyperthyroidism, or a negative Wassermann in active syphilis. Nevertheless, negative or positive laboratory data, together with positive or negative symptoms and signs, constitute the foundations for the building of a diagnosis. Therefore, the more confusing and obscure a case may be the more elaborate the testings required to clarify the muddle.

No doubt others will wish to confirm and extend Doctor Shelton's studies of creatinuria of childhood, and many hundreds of cases must be checked before the true significance will be established. Premature enthusiasm for a new laboratory test must be avoided. Thus, the initial expectations of a reliable distinction between hypo- and hyperthyroidism, by determination of the blood cholesterol, was considerably exaggerated.

❦

Howard L. Eder, M.D. (Santa Barbara Clinic, Santa Barbara).—This work, as reported by Doctors Shelton and Tager, on creatinuria during childhood is of importance. We find certain children who are obviously not in a state of good nutrition, who show no definite laboratory findings on which to base diagnosis or treatment.

The majority of the cases reported in this paper were such children cared for in a preventorium under controlled conditions extremely suitable for study. This investigation showed that those children with retarded bone ages when given thyroid did not respond by an increase in the creatin output. The children did, however, show a considerable increase when given Lugol solution. We have made it a routine procedure to give all new admissions Lugol solutions. We have not decided whether these children are undernourished as a result of some endocrine disturbance caused by a retardation in osseous development, or whether the osseous retardation is a direct result of prolonged poor nutrition from causes other than endocrine deficiency. We have been able, by carrying out a careful regimen, to obtain an average gain in weight of twelve and one-half pounds per child in a period of four months in the preventorium. We have also followed a high per cent of these children after their discharge and found them to continue to gain weight and remain in a state of good nutrition. All children receive seven grains of iron carbonate in an emulsion of cod-liver oil as long as they remain in the preventorium, and they continue its use after they return to their homes. Many of these children, because of clinical evidence or retardation of osseous development, are put on thyroid medication.

This study, as reported by Doctors Shelton and Tager, has been of value to us. I am sure that the importance of creatin output in this type of child is of more significance than can be stated at this time.

❦

Willard E. Kay, M.D. (2000 Van Ness Avenue, San Francisco).—This contribution of Doctors Shelton and Tager clarifies very considerably the handling and therapeusis of this rather large group of children showing moderate bone retardation. Many of them are undernourished, underdeveloped, susceptible to infection, and are allergic. Frequently, signs and symptoms of hypothyroidism associated with a colloid goiter or thickening of the gland and a hypertonic vegetative nervous system with vagotonia and a slow pulse, etc., confuse the picture. The finding radiographically of retarded bone age fits in well with the clinical impression and wish fulfillment that at last we have found the treatment for these deficient individuals, and so exhibit thyroid extract in every form and dosage over prolonged periods. Its failure to help is not only a great disappointment to ourselves but to the parents who, through our enthusiasm, have become too hopeful. In some instances the children are made worse, become more nervous and irritable, and lose weight. We wonder why we have not obtained better results. Since we know a basal metabolism is unreliable and a blood cholesterol likewise, the latter only revealing the more pronounced hypothyroid states when the determination of the bone age is an easier and more reliable aid in diagnosis, this finding of Doctors

* The authors wish to acknowledge the kindly coöperation of Dr. Howard Eder, Medical Director, Miss Cass, Supervisor, and the staff of Sunshine Cottage, Santa Barbara.

Shelton and Tager now gives us a valuable diagnostic aid and marks a definite advancement in our understanding of these cases.

Only within the past few years has the measurement of creatin in the urine been of much clinical significance endocrinologically. Hess (Hess, J. H., Ann. Int. Med., 8:607, 1934) shows that creatinuria is a very delicate index of the effect of thyroid administration, that there is a diminution or complete absence of physiological creatinuria in hypothyroidism, and that thyroid restores it to the normal content; that creatinuria is restored even before changes in body weight, blood cholesterol and basal metabolism are to be noted. Previously, blood creatin and creatinin and urinary creatinuria were chiefly studied from the standpoint of the myopathies, notably the muscular dystrophies. When Janney and his coworkers, in 1918, found an abnormal presence of creatin in the urine (Janney, N. W., Goodhart, S. P., and Isaacson, V. I., "The Endocrine Origin of Muscular Dystrophy," Arch. Int. Med., 211:188, February, 1918), they then noted a polyglandular involvement in which the thyroid, hypophysis, gonads, pineal, and adrenals participated. In 1921 Brock and I (Brock, S., and Kay, W. E., "A Study of Unusual Endocrine Disturbances," Arch. Int. Med., Vol. 27, pp. 1-37, January, 1921), reported our findings in young adults of service age, of the blood and urine creatin in myopathies associated with unusual endocrine disturbances. We did not find anything significant. Recently, in 1936, P. Kahn and N. Smith (Arch. Dis. Child., 11:307-310, December, 1936) feel from their studies that when the gonads are not properly functioning creatinuria appears. Children have creatinuria until puberty. Further, they state that old people have small amounts of creatin, that eunuchoids have constant creatinuria, and that pituitary obesity and hypogenitalism are accompanied with creatinuria. They go on to show that muscle dystrophy or immature muscle mass does not account for it. I should like to ask Doctors Shelton and Tager whether or not the finding of an increased creatinuria in these children might be significant from their point of view?

ROENTGEN-RAY PELVIMETRY*

A STUDY OF THREE HUNDRED TWENTY LABORS

By CHARLES THOMAS HAYDEN, M.D.
San Francisco

DISCUSSION *by Alice F. Maxwell, M. D., San Francisco; D. G. Morton, M. D., San Francisco; John N. Ewer, M. D., Oakland.*

AT the University of California Hospital, routine roentgen-ray studies have been made on all primiparous women for the past four years.

Three exposures were taken: (1) The diameter and configuration of the superior strait were obtained by the Thoms grid method. (2) A lateral film, with the patient in a standing position so that the femurs were superimposed one upon the other, and the Thoms grid plate again used. (3) The subpubic angle was demonstrated by methods proposed by Pettit, Garland, Dunn, and Shumaker.

CLASSIFICATION OF THE FEMALE PELVIS

These films furnished us with material for study with regard to the pelvis, from the standpoint of actual measurements of the superior strait, and at the same time afforded us an opportunity to study the salient characteristics shown by Caldwell and Moloy in their classification of the female pelvis.

The classification is based upon the following factors:

1. The size of the posterior segment of the superior strait.
2. The size of the anterior segment of the superior strait.
3. The degree of the retropubic angle.
4. The width of the greater sciatic notch.
5. The size and shape of the ischial spines.
6. The lateral bore (relationship of the anterior and posterior surfaces of bony birth canal).
7. The width of the subpubic angle.
8. The splay (relationship of the lateral pelvic walls).

FOUR MAIN TYPES

Upon this basis, the four main types of female pelves are distinguished:

1. In the gynecoid type of pelvis, there is a wide posterior segment to the superior strait, wide anterior segment with obtuse retropubic angle, wide greater sciatic notch, average ischial spines, parallel lateral bore, average or wide subpubic angle, and parallel splay.

2. In the android type, there is a narrow posterior segment to the superior strait, anterior segment with acute retropubic angle, narrow greater sciatic notch, prominent sharp ischial spines, converging lateral bore, narrow subpubic angle, and converging splay.

3. In the anthropoid type, the pelvic inlet is greater in its anteroposterior diameter than its transverse diameter, with a resultant wide posterior segment, an anterior segment which is apt to have a slightly acute retropubic angle, extremely wide greater sciatic notch, blunt ischial spines, a lateral bore which is divergent, average or slightly narrowed subpubic angle (often associated with a deep type of pelvis), and either parallel or slightly convergent splay.

4. In the platypelloid type, the pelvic inlet is shortened in its anteroposterior diameter and lengthened in its transverse diameter with a variation of three centimeters or more. This type has a wide retropubic angle, average greater sciatic notch, average spines, inclined to have a divergent type of bore, average subpubic angle and divergent splay.

There are numerous combinations of the above types which account for the subgroups of the classification, as advocated by Caldwell and Moloy, and which constituted 25 per cent of our cases.

AUTHOR'S GROUPING

In a series of consecutive pelves studied, we found the following groups, which we have compared with the series reported by Caldwell and Moloy (215 cases), and the series of one hundred cases reported by Pettit, Gardland, Dunn, and Shumaker.

It is clearly seen that these figures compare for the most part with only minor variations, which are probably due to the differences in clinical material as observed in cross section of any district or section of the country.

In a recent report by Thoms, it is observed that he also found an incidence of anthropoid pelves,

* This study made possible, in part, by grant from the Christine Breon Fund for Medical Research, University of California Medical School.

Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

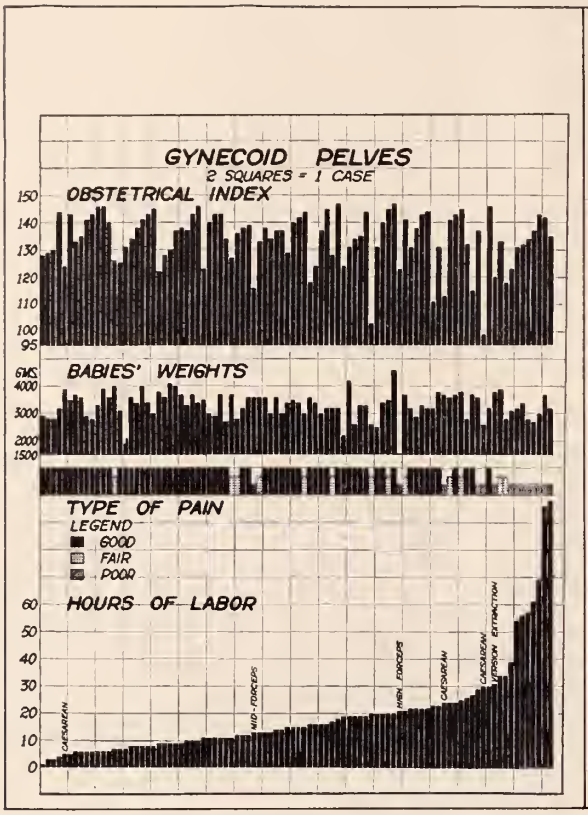


Chart 1.

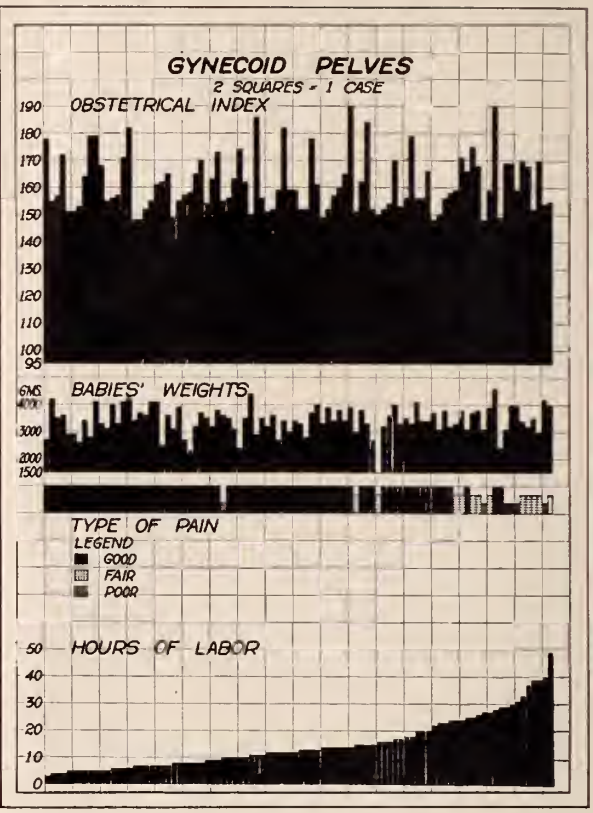


Chart 2.

16 per cent, and platypelloid pelves, 3.3 per cent; while the remainder of his three hundred cases of primiparous white women cannot be directly compared with the above table because of the differences in his classification.

Many investigators and students of the pelvis have conclusively proved the fallacies of external pelvic measurements as a true index of available space along the bony birth canal, and have shown the advantages of roentgen-ray for this purpose in

Table 1.—*Grouping Comparisons*

Type Pelvis	U. C. Service 410 Cases Per Cent	Caldwell Moloy 215 Cases Per Cent	Petitt et al. 100 Cases Per Cent
Gynecoid	54	39.5	51
Gynecoid-android	9	11.1	
Gynecoid-anthropoid	6	4.6	
Android	2	11.6	21
Android-gynecoid	2	5.1	
Android-anthropoid	.7	3.7	
Anthropoid	16	11.6	18
Anthropoid-gynecoid	2	6.5	
Anthropoid-android	.7		
Platypelloid	3	.9	5
Platypelloid-gynecoid	1	3.3	
Platypelloid-android	.2	1.8	
Asymmetrical	2		5

live women, and its practical aid in the prediction of possible operative interference.

A STUDY OF THREE HUNDRED AND TWENTY PRIMIPAROUS CONSECUTIVE LABORS

Three hundred and twenty primiparous consecutive labors delivered in our hospital were investigated, upon whom roentgen-ray films had been taken during their prenatal course.

In this group as a whole (320), operative interference occurred, as shown in the following table:

In the reports of most investigators, the average length of labor has been given for each group; but in our experience this average is not a true index as to what to expect, as there is a wide variation in the number of hours of labor in all groups of pelves, depending upon the type and character of pains. This fact is particularly emphasized when one classifies pelves according to type and compares the duration of labor to the type of pains, size of baby, and relative size of the pelvis. For graphic purposes the obstetric index, as described by Ewer and Bowen, was employed to represent the relative size of pelvis. This index is equal to the product of anteroposterior and transverse diameters. For convenience, we have taken as small pelves those having an index of 135 or less; average size pelves, 135 to 160; and large pelves, 160 to 200.

COMMENT ON PLATES

Plate 1.—In Plate 1 will be found half of the gynecoid group with obstetric indices ranging from 99 to 147, inclusive. There are ninety-two such cases in which labors varied in length from one to

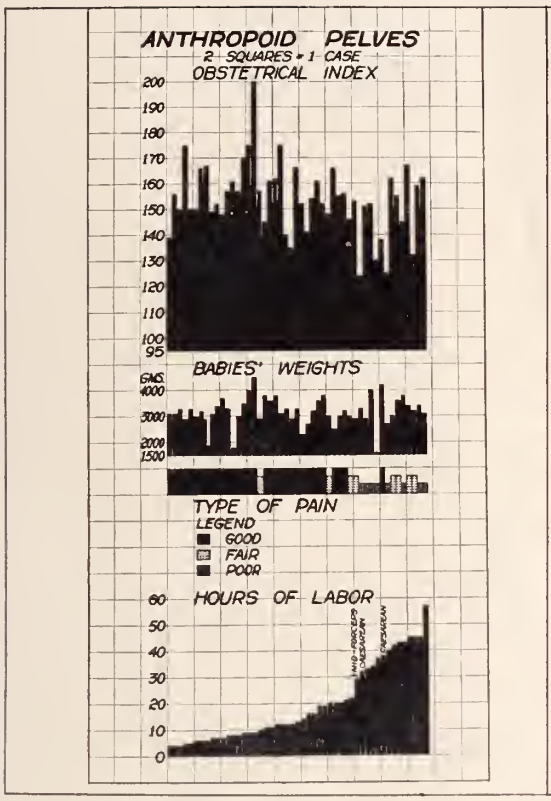


Chart 3.

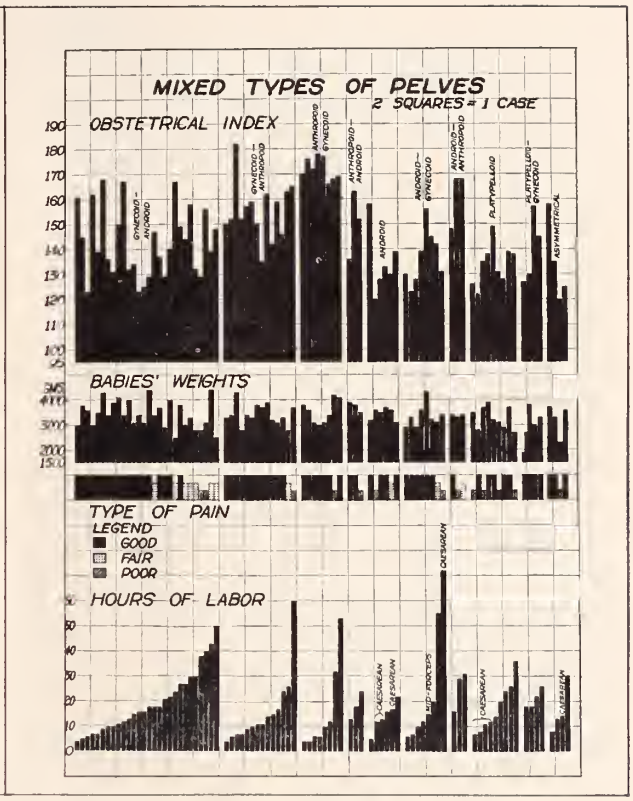


Chart 4.

ninety-eight hours. The long labors throughout are characterized by poor pains, with some definite dilatation of the cervix, but actually representing patients in and out of labor for the duration of time represented in the charts. As compared with the average eighteen-hour labor in this group, 55 per cent had labors of eighteen hours or less, while 45 per cent had labors greater than eighteen hours in duration.

The weight of the babies varied from 2200 to 4600 grams, but for the most part were average. There was one set of twins in this group, babies weighing 1900 and 2100 grams, respectively.

Cesarean section was the method of delivery after trial labor in three instances, one mid-forceps, one high forceps, followed by craniotomy, and one version extraction.

The first cesarean section was performed after five hours' trial labor with good pains and an unengaged head with ruptured membranes. This patient's obstetric index was 124, and she had a 3900-gram baby, which was relatively large. The second cesarean section was necessary in a patient after twenty-four hours of ineffectual pains, with a 3700-gram baby, and a small pelvis with an obstetric index of 113. The third was in a patient after thirty hours' trial labor with poor pains, small baby, 2600 grams and an extremely small pelvis, having an obstetric index of only 99.

In contrast to these three examples there were several small pelves with small obstetric indices that delivered, spontaneously, average-sized babies in less than thirty hours, but their labors were characterized by effective pains as judged by frequency and duration.

Case 1, *Plate 1*.—Case 1, in Plate 1, was a patient with a small pelvis (obstetric index 128), who had a 2900-gram baby in one hour, with very severe pains. She entered the ward at the onset of labor with a few irregular pains, unruptured membranes, a floating head, and undilated cervix. Pains soon became very severe in frequency and duration, and a small baby that died from intracranial hemorrhage was delivered. A second fetal death in the series occurred when a high forceps was attempted and failed, due to a parietal presentation. A craniotomy was necessary to terminate the labor. This labor was characterized by ineffectual pains in a patient with an obstetric index of 123.

The labor in one case, with poor pains, was terminated by a mid-forceps, after full dilatation without advance. This patient's pelvis had an obstetric index of only 116, while her baby was of average size, weighing 3600 grams.

The version extraction was the method of choice in one case, after failure in an attempted mid-forceps to terminate labor in a woman with an obstetric index of 120, after thirty-one hours of

Table 2.—*Operation Statistics*

	Cases	Per Cent
Cesarean section	16	5
Low forceps	37	12
Mid-forceps	4	1
High forceps, with craniotomy	1	.3
Version extraction	1	.3

labor with ineffectual pains, and full dilatation without advance. This patient's baby weighed 3800 grams.

Plate 2.—In Plate 2 will be observed the average and large gynecoid pelves. There are also ninety-two cases in this group. The most striking feature again is the wide variation in duration of labor, dependent upon the character of the pains. The shortest labors were four hours in duration, while the longest lasted forty-nine hours. Seventy-three per cent of the labors in this group were eighteen hours or less, while 27 per cent were over eighteen hours in duration. In this series, no operative procedures were necessary. The babies were of average size, varying between 2300 and 4600 grams. There was one stillbirth in a child with hydrocephalus and associated spina bifida.

Plate 3.—Plate 3 represents the labors, types of pains, size of babies, and obstetric indices in forty-nine cases with anthropoid pelves. Again, the duration of labor has varied, dependent upon the character of the patient's pains. Fifty-seven per cent had labors of eighteen hours or less, while 43 per cent had labors greater than eighteen hours. The longest labor was fifty-seven hours. The weight of the babies again represented, for the most part, average-sized infants. The smallest was 1800 grams, and the largest 4500 grams. There was one set of twins, weighing 1900 and 2900 grams, respectively.

It was necessary to resort to operative measures in four cases, two mid-forceps and two cesarean sections.

The mid-forceps were done in two patients with only fair pains, after twenty-two and twenty-nine hours of labor with uterine inertia after full dilatation. One cesarean section was in a patient after thirty-three hours' trial labor with ineffectual pains, unengaged head, 3300-gram baby and an obstetrical index of 124. The second cesarean section was in a patient with hydramnios and a breech presentation. She was given a trial labor of thirty-eight hours, during which time there seemed to be no disproportion. After full dilatation and the membranes had ruptured, it became evident that this woman had a large baby, frank breech. Her obstetric index was 138, and she had good pains. Several attempts were made to extract the breech and to break it up into a footling breech, but unsuccessfully. As a final resort, a cesarean section was performed and the patient's baby weighed 4200 grams. The incidence of cesarean section in this group is roughly 4 per cent.

There was also one stillbirth (a macerated fetus) in a patient with nephritic toxemia who had an obstetric index of 130, ineffectual pains, and a resultant labor of thirty-seven hours.

Plate 4.—Plate 4 contains the remaining groups for comparison, the gynecoid-android (28 cases), gynecoid-anthropoid (14 cases), anthropoid-gynecoid (8 cases), anthropoid-android (3 cases), android (6 cases), android-gynecoid (8 cases), android-anthropoid (3 cases), platypelloid (9 cases), platypelloid-gynecoid (4 cases), and asymmetrical (4 cases).

Of these pelves, the android, android-gynecoid, platypelloid and asymmetrical will be discussed because the other combination pelves offered no obstetrical difficulties, with the exception of occasional long labors with poor pains, all terminating spontaneously.

The android group were delivered by cesarean section in three of six cases. Each had a trial labor of twelve, thirteen, and seventeen hours, respectively, the first with poor pains, the second with good pains, and the third with fair pains. All had ruptured membranes and unengaged heads. All had average-sized babies, 3500 and 3600 grams, and their obstetric indices varied from 120, 128, and 130. To be sure, the pure male type of pelvis occurred in our series too infrequently to permit one to come to any definite conclusion, but it suggests that the greatest regard should be paid to this group with its high incidence of operative interference.

In short, the same may be said of the platypelloid group. These patients will have their babies spontaneously if there is available room on the transverse diameter to make up for the deficit in the anteroposterior diameter. Good pains are essential and their babies must be of average size. In our small series, spontaneous deliveries occurred in five out of nine cases, with a duration of labor varying from thirteen to thirty-five hours. The first four cases of the platypelloid group had cesarean sections. Indication in the first case was a definite disproportion with overriding. This patient was given a trial labor of eight hours, with good strong pains and an unengaged head. She had an obstetric index of 122 and a baby weighing 2800 grams. In the third case the patient had an eleven-hour trial labor, breech presentation without progress, and ineffectual pains. She had an obstetric index of 135 and a baby weighing 3700 grams. The fourth patient had a twelve-hour trial labor, ruptured membranes, unengaged head, and good pains, without progress. Her obstetric index was 138, and her baby weighed 3900 grams.

The indication for cesarean section in the android-gynecoid group was a matter of last resort in a woman who had a long labor, with ruptured membranes, poor pains, and several attempts at mid-forceps delivery without success. Her obstetrical index was 131, and her baby weighed 3400 grams. Lack of good pains produced an almost tragic result in a woman who should have had her average-sized baby spontaneously.

The indication for the cesarean section in the asymmetrical group was poor position, left brow associated with ruptured membranes, and no progress after fourteen-hour trial labor.

FETAL POSITIONS

In the series as a whole (320 cases), fetal positions other than vertex occurred as shown in the following table.

IN CONCLUSION

There was no apparent correlation between the position and type of pelvis, with regard to the incidence of operative interference.

TABLE 3.—*Fetal Positions*

Position	Cases	Incidence Per Cent
Breech	11	3
Twins	5	2
Brow	1	.3
Face	1	.3

Fetal mortality, uncorrected, occurred four times in 320 cases—an incidence of 1.3 per cent.

Roentgen-ray pelvimetry is a valuable aid in determining the available space in any given pelvis, but must be coupled with good clinical judgment for the conservative care of obstetric patients.

Good pains are essential in the successful outcome of any obstetrical problem. The majority of women with clinically small pelves have normal spontaneous deliveries, provided their labors are characterized by good effectual uterine contractions and average-sized babies.

Labors that are the most trying upon the endurance and coöperation of patients and attendants alike are those with ineffectual pains.

The gynecoid group as a whole, which comprises 54 per cent of women, have labors eighteen hours or less in 64 per cent of cases, and an operative incidence (cesarean section) in 1.6 per cent of cases.

Combination pelves were free from any operative interference except in one instance. Anthropoid pelves—16 per cent of our series—have labors eighteen hours or less in 57 per cent of our cases. They have only 4 per cent incidence of cesarean section.

The small groups of android and platypelloid pelves have a high operative incidence, roughly 50 per cent. However, one must not lose sight of the fact that these form only 5 per cent of the whole series.

University of California Medical School.

DISCUSSION

ALICE F. MAXWELL, M.D. (University of California Hospital, San Francisco).—Caldwell, Moloy, and Thoms's pioneer investigations of the value of roentgen-ray visualization of the pelvis and the grid method of mensuration have opened up new fields of knowledge of pelvic conformation and have permitted the recognition of pelvic variations which influence the mechanism of labor. Therefore, Doctor Hayden's study of x-ray pelvimetry is timely and important. By precision methods a clear picture of the architecture of the entire bony pelvis may be obtained, important diameters accurately measured, spacial capacity of the various pelvic planes readily appreciated, with the necessary adaptation of the fetal head to the available space foretold, all of which lead to a clearer conception of the mechanism of labor. A comparison of the advantages of roentgen-ray pelvimetry, with the older inadequate method of external and internal pelvimetry, are obvious and require no discussion.

What information of obstetrical interest has been acquired by roentgen-ray visualization? First, one is impressed by the relative infrequency of the so-called typical female pelvis. Thus, Hayden's incidence of gynecoid pelvis in but 54 per cent of 410 cases, Pettit's et al. 51 per cent of 100 cases, and Caldwell-Moloy's 39.5 per cent of 215 cases, suggest that our conception of the gynecoid pelvis as the usual and common standard of the female pelvis must be modified. The relative frequency of the anthropoid pelvis among American women is another striking and unexpected finding (16, 18, and 11.6 per cent in the above series). Previous to the advent of roentgen-ray visualization, it was held that this type of pelvis was of rare and unusual occurrence. A negative finding, but one of significance, is the absence of marked degrees of pelvic contraction in the general population—minor degrees of contraction are not unusual. The conception of spacial relations of the entire pelvis permit a more intelligent attitude in the supervision of labor in the problem case, *i. e.*, the borderline pelvis.

The mechanism of labor involves a nicety of balance between three factors—the passages, the passenger, and the propeling force which dilate the soft parts and extrudes the child through the birth canal. This report indicates that moderate pelvic contractions are not infrequent, excessive development or abnormalities of the child of such a degree as to obstruct labor are relatively uncommon, and should be recognized by ordinary obstetrical observations. The status of both these factors can be recognized before the onset of labor. The efficiency of uterine motor power is unknown until the onset of labor. Doctor Hayden's study clearly indicates that effective contractions readily overcome the resistance met by the child in its passage through a pelvis of moderate contraction; weak contractions are a serious handicap and may be the deciding factor in the outcome of labor in contracted pelves. A combination of borderline pelvic contraction and poor uterine contractility should indicate a strict limitation of the duration of "trial labor," and permit intelligent intervention at a time when neither the mother nor child are jeopardized by exhaustion or infection.

Since it is not possible for every obstetrical patient to have roentgen-ray pelvimetry, the information gained by external and internal pelvimetry, though inadequate must be utilized. An external conjugate of 18.5 centimeters or less suggests a possible contraction of the anterior-posterior diameter of the superior strait; a diagonal conjugate reached at 11.5 centimeters confirms the contraction, funnel pelves can be readily diagnosed by the length of the diameter between the ischial tuberosities. The prominence of the ischial spines and the curvature of the sacrum can be readily determined by palpation. Such observations give useful information; to meet the best interest of the mother and child, however, roentgen-ray visualization of the pelvis should be obtained if any of the above data indicate shortened diameters or abnormal pelvic conformation.

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D. G. MORTON, M.D. (University of California Hospital, San Francisco).—Doctor Hayden's study reveals not only the incidence of the various types of pelves, as classified by Caldwell and Moloy, to be expected in this section of the country, but also brings out a number of interesting correlations between the pelves and the labors. Of great interest is the fact that the length of labor in these 320 primiparae was related so closely to the type of labor pains. When the pains were poor the labors were long and occasionally required operative interference; when the pains were strong the labors terminated speedily and spontaneously with few exceptions. These relationships held true almost without regard to the types of pelves or their sizes. Such observations have a very important bearing upon the proper conduct of labor, and should lead us to adopt a conservative attitude whenever we are confronted with good pains, regardless of the type of pelvis. Obviously, exact measurement of the pelvis cannot give us a reliable prognosis of the outcome of any labor, without reference to such important factors as the type of pains and the size and presentation of the fetus.

Apparently there are two pelvic types which often lead to difficulty in labor—the android and the platypelloid. Fortunately, they are rare; only five per cent in Doctor Hayden's series. Roentgen-ray pelvimetry can be of great assistance in determining the presence of such pelvic types. It would seem, also, that the obstetrical index is of value in determining the probable outcome of a labor. When this is very low, trouble may be expected, unless the baby also is quite small and the pains good.

I do not believe that we need consider roentgen-ray pelvimetry as a routine part of ordinary obstetrical examinations, but it should certainly be done in all cases in which

there is any suspicion at all of pelvic abnormality or undue smallness, as revealed by the patient's build, and our ordinary external examinations of the pelvis.

*

John N. Ewer, M.D. (411 Thirtieth Street, Oakland). Increased interest has recently been shown in pelvimetry and classification of pelves by the use of the x-ray. Those who employ it have found external pelvic measurements often deceiving. Doctor Hayden's paper represents an excellent study of this subject, with careful correlation of the labors of the patients concerned.

For a considerable length of time I have been employing roentgen pelvimetry in private practice in all primigravidae and in such multigravidae with a history of difficult labor apparently referable to the size or shape of the pelvis. My series of about three hundred cases parallels the above reported series in most significant respects. As would be expected, there was a definite relationship between the size of the pelvis, as expressed by the obstetric index, and failure of engagement of the head. Both series employed the test of labor whenever possible, which, in my opinion, is not carried out as often as it should be. In this connection, I should like to reiterate one of Doctor Hayden's important points, viz., that the strength and efficiency of uterine contractions are one of the major factors determining the outcome of a given labor. The test of labor is, I believe, the only way to accumulate the experience necessary to form the basis of judgment as to what influence a given size or type of pelvis may have on the necessity for operative delivery. The efficiency of contractions may be the deciding factor in a case of so-called "borderline pelvis." An exact knowledge of a given pelvis will, however, obviate many unnecessary cesarean sections or instances of dangerous procrastination.

The position of the baby does not seem to be influenced to a great degree by either the size or shape of the pelvis after engagement has taken place. The incidence of occiput posteriors requiring interference or born spontaneously as such in my cases has closely paralleled the incidence of the sizes and types of pelves encountered in the whole series. That other factors than the bony pelvis must also be involved in the etiology of occiput posterior is suggested by the fact that, of forty such cases requiring interference, seven were delivered spontaneously in a subsequent labor, and all delivered in occiput anterior, some with surprising rapidity. It would seem poor obstetric practice to advise elective cesarean section to a woman who had had one labor made difficult by anterior rotation failure unless other factors were also present which would make such a decision justifiable.

Modern procedures impose no sacrifice of obstetric art if they invite a closer understanding of the problem involved.

CLINICAL MANAGEMENT OF SKIN CANCER*

By Eric Liljencrantz, M.D.
and
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Discussion *by Harry J. Templeton, M.D., Oakland; Clyde K. Emery, M.D., Los Angeles.*

THE proper management of skin cancer depends upon (1) accurate diagnosis; (2) adequate treatment of an adequate area; and (3) energetic follow-up.

Accurate diagnosis entails differentiation between malignant and benign lesions, and, further, in the malignant ones, the exact identification of cell type. We have not found it possible to make these very important distinctions accurately without biopsy.

DIFFERENTIAL DIAGNOSIS BETWEEN BENIGN AND MALIGNANT LESIONS

In general, the distinction between benign and malignant skin lesions is not difficult. We have found the question arises sufficiently often, however, to warrant routine biopsy in all cases of suspected cutaneous malignancy.

The problem can be illuminated far more effectively by reference to the accompanying photographs than by verbal description.

Senile keratoses, along with erythroplasia and Bowen's disease, are among the commonest borderline lesions, and are to be regarded with constant suspicion. Their appearance may be markedly altered by inflammatory changes. Early signs of malignant change may be (1) tenaciously adherent thickened crusts, which leave a finely granular bleeding base when torn off; (2) marginal proliferation and induration, with solid or with pearly nodular rolled edges; and (3) central ulceration, with crusting or cornification. Malignant change may be evident histologically, with minimal clinical evidence.

Sebaceous and epithelial cysts, simple papillomata, and infectious granulomata occasionally may cause confusion. We have made the error of calling benign lesions malignant about as frequently as we have treated malignant neoplasms as benign.

The differentiation between hemangioma and melanoma seldom should be difficult. Occasional deeply situated hemangiomata, however, may be so intensely colored that they closely resemble melanoma. Melanomata may masquerade as infected granulomata.

The comparative rarity of cutaneous sarcoma, endothelioma, lymphoblastoma, mycosis fungoides, and various metastatic carcinomata, and the infinite clinical variety in which they may occur, render exact identification, proper management, and prognosis impossible without accurate histological information.

THE IMPORTANCE OF DETERMINING CELL TYPE IN CUTANEOUS CARCINOMA

Primary skin carcinoma is usually classified as:

1. Squamous cell or epidermoid carcinoma.
2. Basal cell noncornifying carcinoma, or rodent ulcer.
3. Mixed types.
4. Adenocarcinoma (arising in sweat and sebaceous glands).

Our experience, in keeping with that of others, is that the vast majority of skin carcinomata is included in the first two groups.[1,2] Mixed lesions constitute probably less than 5 per cent of skin carcinomata, and the primary adenocarcinomata less than 1 per cent.

The question of histogenesis of these types should be mentioned briefly to call attention to a seeming paradox in the generally accepted termi-

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Read before the Dermatology and Syphilology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

Squamous Cell Carcinoma Epidermoid or Prickle Cell Type	Basal Cell Carcinoma Rodent Ulcer
Accurate Differentiation Not Possible Without Microscopic Examination	
Relatively short course.	Chronic course—repeated crusting and ulceration, gradual enlargement.
Large (over six to ten millimeters) lesion present less than one year.	Duration over three to four years.
Local circumjacent hyperemia.	Circumjacent inflammation usually absent.
Cornification (not crusts).	Crusting, no definite horny material.
Solid border—elevated, hard, with visible blood vessels.	Pearly nodular rolled edge.
Fetid purulent exudate from late lesion.	Occasional bleeding, serosanguinous discharge.
Location Correlated With Lesion Type—In Itself No Reliance Both Types May Occur Anywhere on Skin	
Principally on mucous membrane, mucocutaneous junctions, and on the extremities.	Chiefly on the face, especially nose, forehead, eyelids, temples, scalp.
Lower lip, penis, vulva.	Upper lip.
Age: Patients usually age 30 to 50.	Age: Patients usually over 50.
Reasons That Make Differential Diagnosis Important	
Metastasize early to regional nodes. Distant metastases not uncommon.	Rarely metastasize at any stage. Persistent tendency to local recurrence. Commonly multiple.
May be relatively radioresistant.	Relatively radiosensitive.

nology. The term "basal cell carcinoma" intimates that these lesions arise from the most actively proliferating layer of the skin; yet these tumors are notoriously slow-growing and histologically well differentiated. On the other hand, the term "squamous-cell carcinoma" implies origin in the most mature layers of the skin. It does not seem likely that such inactive layers should give rise often to poorly differentiated tumors capable of such rapid growth and spread. Haythorn [2] has presented strong evidence, on the basis of both distribution and histology, that typical Jacobian rodent ulcers do not originate in the basal-cell layer. Pending further evidence or wider acceptance of Haythorn's views, it probably would be more satisfactory to use the nonconmittal, simple descriptive term, "rodent carcinoma," for the noncornifying lesions, and the term "epidermoid carcinoma," for the cornifying or acanthomatous type.

Epidermoid carcinoma is a malignant neoplasm which spreads by true metastasis, but which may vary in clinical course from indolent localized growth to wild widespread lymph and blood stream dissemination. One thousand autopsies performed on patients with carcinoma at the Stanford University School of Medicine include twenty-four patients dying of epidermoid skin cancer. The mortality from this disease in Willis's series is roughly comparable.

True rodent carcinoma is a locally infiltrating lesion which may vary widely in rate of growth. Although multiple lesions [3] are common, it may be said that rodent carcinoma virtually never metastasizes. The series reported by Haythorn and by Warren et al., contains no instance of metastasis of a rodent carcinoma in over 2,700 cases of skin cancer. Our out-patient clinic records fail to reveal any instance of such metastasis. Willis reports that no proved instance of blood-borne metastasis to viscera has been recorded.[4] Niles [5] carefully searched the literature on this question in 1931. He was able to find "only five histologically proved cases of metastasis of a pure basal-cell epithelioma in which both the original growth and the metastasis were of pure basal-cell type," and reports an additional case of mixed type. The accompanying photomicrocraphs of these metastatic tumors, however, suggest pure noncornifying epidermoid carcinoma.

The extreme rarity of metastasis from rodent carcinoma and the frequency of metastasis from epidermoid only add weight to the importance of distinguishing sharply between lesions with such reliably different habits of growth.

Many clinical criteria exist that are correlated with cell type.[6,7] The commoner ones are listed in Chart 1. We have not found any single clinical criterion or group of criteria, however, that is entirely reliable. The age of the patient may be misleading, as we have found epidermoid carcinoma in many patients over fifty, and have found rodent carcinoma in a few under fifty. The rate of growth and size of the lesions are not reliable indices. Circumjacent erythema is not a definitive sign; cornification is rarely well marked. Also, the appearance of either type of lesion can be profoundly altered by secondary infection.

Location is not reliable. We have encountered epidermoid carcinoma occurring on all the areas usually preferred by rodent carcinoma, namely, nose, forehead, eyelids, temples, and scalp. Rodent carcinoma, likewise, occasionally does occur on the extremities, near the mucocutaneous junction, and on the scrotum, but we have never found it on the lower lip, penis, or vulva.

Perhaps the most helpful sign is the pearly or waxy, rather soft, nodular border of the early rodent carcinoma.

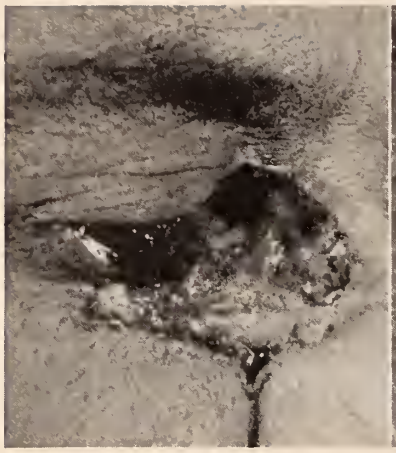


Fig. 1

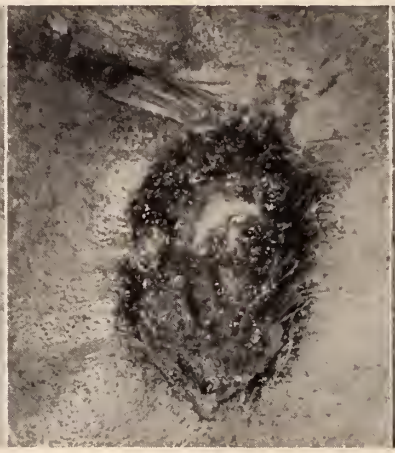


Fig. 2



Fig. 3

Fig. 1.—Recurrent rodent carcinoma. Patient, aged 45. Lesion undertreated with x-ray ten years before, with radium seven years before, and radium again three years before this photograph was taken. Now badly out of hand. Cure possible only by mutilating operation removing bone and sacrificing eye. Compare with the epidermoid lesion shown in Figure 6.

Fig. 2.—Advanced, maltreated rodent ulcer. Patient, aged 64. Lesion inadequately treated on at least three occasions with radium over ten-year period. Extensive ulceration with secondary infection, fixation, and salivary fistula. Note skin atrophy (postradiation?) at upper pole, and spontaneous pronounced peripheral cicatrizing reaction at anterior edge. The margins are rather flat and irregularly nodular rather than sharply raised. Compare with Figure 9*a*.

Fig. 3.—Epidermoid carcinoma. Patient, aged 75. Both rodent and epidermoid carcinoma are common on and about the ear.

Figures 1-6 show more clearly than words examples ranging from entirely typical lesions of both types in which clinical diagnosis was easy, to strikingly atypical lesions in which exact diagnosis was impossible without histologic examination.

Summarizing the foregoing observations leads us to the conclusion that even fairly dependable diagnosis of skin cancer is frequently impossible without biopsy. In early stages the border line between benign and malignant lesions cannot be determined, and in later stages the important distinction between rodent ulcer and epidermoid carcinomas cannot be made with certainty. Even less accurately can one predict histological grading, or identify mixed or rare types of cutaneous malignancy.

BIOPSY

Microscopical examination of tissue represents by far the most reliable diagnostic aid, but even here questions arise which require careful correlation of the microscopic findings with clinical data.

We do not believe that careful biopsy of skin cancer adds to the danger of metastasis [8] except in the case of melanoma. There can be little question of this when removing tissue from an ulcerative lesion, and in early cases the entire lesion can be excised with less trauma than that to which the patient's everyday activities or a careless clinical examination would subject it. If one wishes to be doubly cautious, biopsy can be delayed until after a course of irradiation has been well started.

Melanoma, benign or malignant, never should be cut into. Electrodesiccation and other irritative measures invite disaster, and are to be strictly avoided. Our experience with malignant melanomata, in keeping with that of other series,[9] forces us to the strong conviction that all pigmented lesions should either be left strictly alone or widely and deeply excised. Degree of pigmentation is not a reliable index of potential malignancy, hence innocent-appearing, faintly pigmented nevi should be approached with the same caution.

TECHNIQUE FOR BIOPSY

The first requisite in performing biopsy is to obtain tissue that is truly representative of the lesion. The specimen removed should include a margin of normal tissue, and should extend deeply enough to give some evidence as to the infiltrative properties of the tumor. This can be done nicely either by removing a deep, narrow wedge of tissue with a pointed, fine scalpel and fine-toothed forceps, or by using a five-millimeter skin punch. We have found the latter instrument particularly satisfactory in yielding a maximum volume of tissue cleanly excised to a satisfactory depth with a minimum of trauma. If the lesion is large, more than one specimen can be taken. Usually, however, the five-millimeter piece will be sufficient to demonstrate even mixed-cell types. Local anesthesia should be injected at the margin. Mercurochrome or other dye applied to the skin will help to identify the surface so that it may be properly mounted in paraffin. The site of biopsy may be cauterized with silver nitrate stick.

TREATMENT

It has been our experience that the method of treatment of skin cancer is not as important as the skill and thoroughness with which the method chosen is applied. Excision, irradiation, and locally destructive methods have been used, and there have been many failures for all three methods.

In considering the results of treatment, one must distinguish clearly between true recurrences and multiple lesions. Difficulties in the diagnosis of putative recurrences also arise. Multiple independent rodent carcinomata are common, and we have

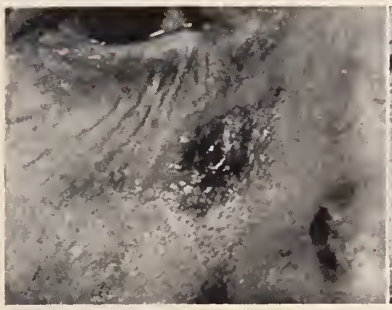


Fig. 4



Fig. 5



Fig. 6

Fig. 4.—Epidermoid carcinoma. Patient, aged 67. Duration two years. Appearance and location more characteristic of rodent carcinoma.

Fig. 5.—Mixed tumor. Patient, aged 73. Lesion present one year. Had recently grown rapidly following application of tar ointment. Biopsy revealed an invasive rodent carcinoma with acanthomatous (epidermoid) areas. Epidermoid carcinoma not uncommon on nose.

Fig. 6.—Fatal epidermoid carcinoma. Patient, aged 55. Untreated lesion of over three years' duration. Heavy irradiation arrested the primary. Extensive regional glandular metastases occurred. Compare in appearance and prognosis with Figure 1.

seen several instances of rodent ulcer and epidermoid carcinoma occurring in the same patient.

SURGERY

Failure to cure by excision is usually due to the removal of an inadequate amount of tissue. A wide margin must be allowed on all sides of the lesion as well as beneath it. Closure usually can be effected by undercutting or, if necessary, by the use of tissue flaps. Careful planning of incisions, meticulous attention to asepsis, hemostasis, and the avoidance of trauma and tension in closure usually will result in satisfactory cosmetic results even on the face.

IRRADIATION

Failures to cure by irradiation are due to inadequate dosage as well as to the treatment of an inadequate area.

Since many misconceptions prevail concerning the use of radium and x-ray, particularly in regard to choice of quality of radiation, it may be justifiable to mention briefly some fundamental considerations.

QUALITY OF RADIATION

Quality of radiation is determined by the wavelengths present. Rays of short wavelength are spoken of as "hard rays," and conversely those of long wavelength as "soft rays." In the case of radium, quality is influenced by the filtration applied, and in the case of x-rays, by both voltage and filtration. High voltages produce both long and short wavelengths. Heavy filters absorb the former, leaving a hard, emergent beam containing only the shorter wavelengths. In radiation produced at low voltages, the shorter wavelengths are absent.

Quality of radiation has a great influence on the distribution of the physical effect within the body due to differences in absorption of the radiation by the tissues. But the actual physical effect on tissue, once the radiation has been absorbed, is qualitatively hardly at all different, for gamma rays, x-rays, and beta rays (the whole gamut of radiation quality). Differential biological effect is most uncertain.

As an example, one may compare the action of very hard x-rays with that of very soft x-rays. If equal surface doses of these two qualities of radiation be given (to equal areas from the same distance), it will be found that one-half the energy of the soft radiation may be absorbed in the first 2 to 3 centimeters of tissue, whereas in the case of the hard radiation, some 8 to 10 centimeters of tissue may be traversed before one-half of its energy is absorbed.

If one is concerned only with the treatment of superficial lesions, the use of hard radiation possesses no demonstrable advantages. It introduces the disadvantage of irradiating to greater depths than necessary and, therefore, unnecessarily injuring large amounts of tissue.

It should be made clear that the usefulness of the shorter wavelengths, therefore, lies primarily in the ability of such radiation to reach deep lesions rather than upon any superior selective biological action on the lesions once they have been reached. There is no demonstrable difference in such biological actions as production of erythema, or degree of destruction of normal or abnormal tissues, in the superficial layers where the intensities of irradiation are comparable.

The same arguments hold true in comparing the biological action of the gamma rays of radium (of very short wavelength) with that of soft x-rays, namely, that differences in the strata in which these rays are absorbed is a far more important consideration than any differences in biophysical action that may follow such absorption.

The beta rays of radium represent very soft radiation, and are almost entirely absorbed by the first few millimeters of tissue. Once sufficient filtration has been applied to absorb virtually all of the beta rays (0.5 millimeter of platinum or its equivalent) additional filtration does not appreciably alter the quality of the remaining very hard (gamma) rays.

Filtered radium usually is used concentrated and close to the surface, so that the effect is limited to a small volume of tissue. This is due not to absorption, but to the effect of distance. All radiant energy is dissipated in space directly in proportion



Fig. 7



Fig. 8

Fig. 7.—Epidermoid carcinoma. Patient, aged 57. Lesions here are usually rodent carcinoma. Small lesion arose five years previously; cautery was used two years ago. Rapid growth past six months.

Fig. 8.—Same patient as shown in Figure 7 three months after heavy irradiation (6,000 r divided into twelve daily doses of 500 r each to 4 by 7 centimeters oval area).

to the square of the distance from its source (the inverse square law). The skin surface 5 millimeters from a piece of radium gets nine times the tissue dose received by tissue 10 millimeters below the surface.

X-RAY DOSAGE

If the above principles are applied to the treatment of cutaneous lesions with x-rays, it will be apparent that comparatively soft radiation is preferable. In practice, voltages in the range of 90-130 KV are adequate. No filter is necessary for treatment of lesions extending less than one centimeter below the surface. Filtration in excess of one millimeter of aluminum seldom should be required in treating skin cancer.

The limits of x-ray dosage vary sharply with the surface area of the treatment field. For small skin areas, a cauterizing dose of unfiltered x-ray may be given in a single sitting. On the face we have found 3000 r in a single dose safe for areas up to 2½ centimeters in diameter. On hand or foot, we think 1½ centimeter the safe limit for such a single dose, and then only if the circulation is normal.

X-radiation applied in this manner represents treatment by local destruction, and usually suffices to eradicate small local malignant lesions, regardless of cell type. The radiation reaction which follows such treatment usually results in destruction of surface epithelium, with healing by granulation to produce a soft, smooth, inconspicuous scar. The area treated can be very accurately outlined by cutting shields of thin lead to be applied directly to the skin (see Figures 9a and 9b). We cut a special shield for each case.

When larger areas or higher doses have been employed, we have resorted to fractional dosage. Total dosage (measured in air) may vary from 7000 r given in ten daily doses to a 5 square centimeter area, to 4000-6000 r given in daily doses of 200-300 r to areas of 50-150 square centimeter. The larger the area, the smaller are both the daily and the total doses that may be administered with safety. We must calculate, of course, the dose extremely accurately and be certain that the dose is administered exactly as calculated, particularly when using unfiltered x-ray. Short treatment distances [10] may be used by which treatment time may be greatly reduced.

INFLUENCE OF TYPE OF LESION

The cell type of the lesion is to be considered in deciding upon the area and total dosage to be used. We believe epidermoid carcinoma should be given wider margin (7 millimeters for a small lesion, 10 millimeters or even more for a large one) around all visible and palpable tumor, and that the highest total dosage compatible with this area should be given. Rodent carcinoma can be treated with a narrower margin and somewhat lower total dosage (4000-5000 r in divided doses for a large lesion). However, 3000 r should be used for any cutaneous malignancy small enough to treat at a single sitting.

We feel that a marginal recurrence of a rodent carcinoma is still readily curable, but look on recurrent epidermoid as definitely dangerous.

RADIUM DOSAGE

The technique of radium application varies greatly with location of the lesion and type of applicator used (plaque, needles, moulage pack), and cannot be discussed in detail here.[11] Uniform distribution and adequate dosage are essential. Our own practice is usually to use external packs to give gamma radiation from many different points surrounding the lesion, and to calculate the dose



Fig. 9*a*



Fig. 9*b*

Figs. 9*a-b*.—Horny protuberant epidermoid carcinoma recurrent after repeated surgery and irradiation. Patient, aged 87. If direct irradiation of the horn and surrounding skin is used, absorption of radiation within the lesion will result in inadequate dosage being delivered to its base, while a maximum tolerable dose is received by the surrounding skin. Electrosurgery (coagulation or radioknife) may be used to trim the horn to the level of the surrounding skin before irradiating the base, or the method illustrated may be employed.

(*a*) Shield in place to outline total treatment area (4 by 5 centimeters).

(*b*) Paraffin block cut to fit closely around the horn to its full height. Absorption of radiation in paraffin is roughly equivalent to that in flesh, so that the underlying skin does not receive higher dosage than does the *base* of the horn.

so that the maximum surface dosage received from all these points is the equivalent of 550-800 milligram hours at one centimeter distance (roughly five to seven threshold erythema doses).

CHOICE BETWEEN RADIUM AND X-RAY

For most cases of skin cancer we believe that it is easier to obtain exactly the desired intensity and uniformity of tissue dose with x-ray than with filtered radium. Also it is possible to confine the irradiation precisely to a definite surface area. Only for very thin lesions is the use of beta ray from a radium plaque satisfactory, for which it is a really elegant tool.

As stated previously, we are unable to recognize any superior biologic effect of gamma rays over x-rays.

PROGNOSIS

The prognosis of skin cancer depends above all upon the anatomical extent of the lesion. Numerous workers report small noninfiltrating epitheliomata of all types cured in over 80 per cent of cases by any of the several acceptable methods adequately applied. Magnusson[12] states that prognosis becomes decidedly less favorable when the tumor exceeds four square centimeters area. Miescher[13] reports 90 per cent primary cures following x-ray treatment for small epidermoid lesions as contrasted with 45 per cent for larger tumors of the same type. Infiltrated tumors present a poorer prognosis. Nielsen[14] reports only 21 per cent five-year cures for such lesions treated with filtered radium plaque. Rodent carcinoma always offer a better prognosis than epidermoid, particularly in more advanced cases. The involvement of regional glands renders complete cure by any method or combination of methods unlikely, although many significant arrests (five years or more) are obtainable through radical treatment.

In the case of epidermoid lesions, histological grading, after the method of Broders[15] or similar schemes, may add valuable prognostic data. It is true that different portions of the same tumor may appear to be of different degrees of malignancy, but this variation usually is over adjacent portions of the scale of malignancy. For example, it is not uncommon to find tissue of both Grades I and II, II and III, or III and IV, from the same tumor, but rarely are Grades I and IV, or even I and III, found in any single lesion.

Ordinarily the more mature or well-differentiated lesions (Grades I and II) grow more slowly and have less tendency to metastasize, while the more anaplastic or poorly differentiated tumors (Grade III and IV) grow more rapidly and metastasize more widely. From the therapeutic standpoint it can be said in general that the maturer tumors are amenable to treatment by complete surgical extirpation, and require really massive doses of radiation for complete destruction. Anaplastic lesions (Grades III and IV) are very radiosensitive. Since attempts at extirpation are likely to cause dissemination, surgical measures should be limited to early localized lesions in this group. The metastases of anaplastic lesions never should be resected.

FOLLOW-UP

The necessity for maintaining an adequate follow-up system should be obvious when one considers the frequency of multiple skin cancers, recurrences, and metastases. This is frequently neglected in both clinic and private practice. Many unfortunate results, as well as time, trouble, and expense, can be spared if the necessity for follow-

up visits is carefully explained to patients at the time they are first treated. We think it preferable to have the fee made for the treatment cover the follow-up visits as well. When this is done, patients are much more willing to return frequently. Specific return appointment cards should be given. When these appointments are broken there should be no delay in using telephone or letter to get in touch with the patient. This is an important direct responsibility of the physician when dealing with cancer of any sort, and should not be neglected.

CONCLUSIONS

1. Accurate diagnosis is essential for correct treatment of skin cancer. Accurate diagnosis is frequently not possible without histological examination.

2. The distinction between rodent and epidermoid carcinoma is of unquestioned practical importance in regard to both treatment and prognosis.

3. Considerable choice of treatment methods exists. The skill and thoroughness with which treatment is applied may be of greater importance than the method selected.

4. Within wide limits the quality of radiation used is of little or no importance. High intensity and uniformity of tissue dose are essential.

5. Conscientious follow-up is of great importance, and frequently is neglected in both clinic and private practice.

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DISCUSSION

HARRY J. TEMPLETON, M.D. (3115 Webster Street, Oakland).—It seems to me that the ideas presented in the authors' paper represent the last word in radiation therapy of cutaneous malignancies, and that such exact and meticulous technique as they advocate should be used when radiation therapy is indicated. I am certain that both Doctor Liljencrantz and Doctor Kulchar recognize the principle that various types are valuable in the treatment of skin cancer, and that a physician should use whichever adequate method he is most familiar with. Their preference is for radiation therapy. My own belief is that while radiation therapy is invaluable in certain select cases, the average easily accessible cutaneous malignancy can be more certainly cured by methods of local destruction, such as electrodesiccation, electrocoagulation, the actual cautery, or widespread excision. I will base my entire argument upon the fact that certain cancer cells are not radiosensitive, while it is obvious that it is impossible for any cancer cell to resist destruction by electrocoagulation or the actual cautery. Those who advocate radiation therapy will answer this argument by stating that, if they so desire, they can give sufficiently heavy doses of radiation as to produce as thorough a cauterization of the local growth as would a cautery. This is true, but, unfortunately, such heavy doses administer unnecessarily heavy depth doses to cells beyond the area which one desires to cauterize. This accounts for the fact that scars from radiation therapy become more conspicuous, atrophic and telangiectatic as the years go on, while scars from coagulation or the cautery become softer and less noticeable with time.

Because of these facts it is my custom to reserve my radium and x-ray therapy for the weak and aged, and for those epitheliomas which are not easily accessible.

❋

CLYDE K. EMERY, M. D. (445 South Kingsley Drive, Los Angeles).—It is a great comfort to those of us who habitually deal with skin cancer to hear such an excellent summary of the subject as Doctors Liljencrantz and Kulchar have presented. I can only emphasize a few points, primarily that of adequacy of treatment.

We regard radiation treatment as being of two types. First, the cauterizing dose which is given by the soft radiation of x-ray or by radium. The aim in treatment is to kill in one series of treatments all cancer cells. This is comparable to a complete surgical excision, the advantage being that it can be applied to include a wider area of apparently normal tissue. This normal area, we feel, should extend to a full centimeter or more around the average skin cancer, whether basal cell or squamous cell, with particular care being taken to radiate the line of lymphatic infiltration in the case of epidermoid carcinoma. In the case of the noncornifying rodent ulcer, treatment is given to all areas most likely to be involved by direct invasion. In the nasolabial fold, this includes the side of the nose and all tissue between the inner canthus and the upper lip. If radium is given either on the surface or interstitially, an open area should have 5,000 to 6,000 r units of uniform intensity. Around the nose and eyelids it should be reduced 20 to 25 per cent.

The second method of radiation treatment, that of smaller doses over a longer time—as is desirable in treating deep-seated cancer—is seldom necessary on the skin. The occasional treatments, and the handling of skin cancer as though it were a skin infection, cannot be too strongly denounced as inadequate.

I would also stress that portion of the paper which deals with the follow-up, and particularly to heartily concur with the method of making one original fee to cover the entire handling of the case, including all of the subsequent follow-up visits and examinations. This relieves the physician of any uncomfortable feeling of mercenary interest in the patient's subsequent visits, insures more adequate follow-up, and enormously improves the friendly relationship between the patient and the doctor.

CHRONIC DUODENAL STASIS*

A SYNDROME WITH NEUROLOGICAL SYMPTOMS

By Frederick Leet Reichert, M.D.
San Francisco

Discussion *by Nelson J. Howard, M.D., San Francisco; John Homer Woolsey, M.D., Woodland.*

THE clinical entity of chronic duodenal stasis was evolved some thirty years ago from an awakened interest in the seriousness of acute gastric dilatation. At that time, the reports of careful postmortem examinations witnessed by alert surgeons reëmphasized a pathological condition that had been mentioned sporadically in the literature since von Rokitansky,[1] in 1863, clearly described the acute gastric and duodenal dilatation from pressure of the mesenteric root on the third portion of the duodenum.

DISCUSSIONS IN THE LITERATURE

In Glenard's [2] classical presentation of enteroptosis, in 1889, a constriction in the duodenal-jejunal region is described as being caused by the traction produced by an acutely dilated stomach.

Fagge's [3] report, in 1873, on acute dilatation of the stomach, called attention to the relief experienced by the systematic use of the stomach tube, and the washing out of the gastric cavity with Vichy water, as suggested by Kussmaul [4] in 1869.

Schnitzler,[5] in 1895, in a case of acute gastric dilatation, believed due to mesenteric obstruction, reported a successful outcome by changing the patient from the dorsal to a ventral position.

Both Glenard [2] and Kundrat [6] felt that persistent, uncomplicated obstruction of the duodenum by the root of the mesentery was not uncommon, and that it led to gradual dilatation of the stomach and duodenum.

The mesenteric traction producing duodenal occlusion was thought to be due to the displacement of collapsed intestines into the pelvis. By this displacement, tension was put on the mesentery, thereby changing the cord-like superior mesenteric vessels into a constricting band that obliterated the lumen of the duodenum (Figs. 1 and 2). Albrecht's [7] paper, in 1899, strongly supported this theory.

Thomson,[8] in 1901 and 1902, discussed the different theories and favored the belief that, in a majority of the cases, a primary paralysis of the stomach was the underlying cause since, in his examinations, he found that the constrictions of the duodenum occurred at various levels, which would not be expected if the obstruction were due to compression by the superior mesenteric vessels.

Thomson's neuromuscular theory, of acute gastric dilatation, found further support in Laffer's [9] paper, in 1908, in which his experimental, clinical and pathological evidence indicated a primary disturbance of innervation affecting the gastric nerves, or their centers in the brain or cord. The recent

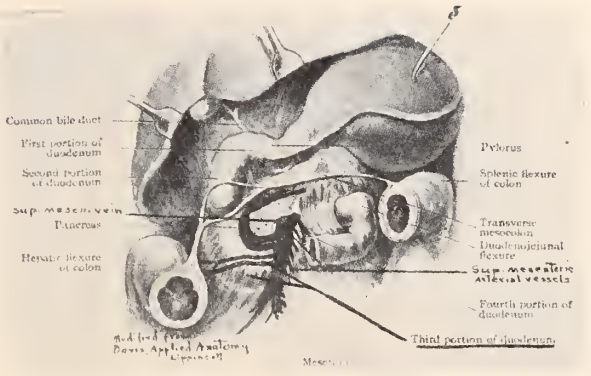


Fig. 1.—The duodenum, showing its course and relation to the surrounding organs. Compression of the third portion of the duodenum by the superior mesenteric vessels.

experimental work of Dragstedt, Montgomery, Ellis, and Matthews,[10] in 1931, again revealed that acute gastric dilatation was due to reflex inhibition of the peripheral motor mechanism through efferent impulses reaching the stomach by way of the vagi and splanchnics. They have postulated that stimulation of either visceral or somatic sensory nerves might produce such reflex gastric inhibition, and attributed the cause of death to failure to resorb the gastric and pancreatic juices and the inorganic elements, especially sodium and chlorin. The failure to resorb was dependent upon the inability of the atonic stomach and duodenum to propel the secretions into the lower intestines. In certain cases the occurrence of a secondary mesenteric obstruction to the inferior horizontal portion of the duodenum provided a further obstacle to the passage of secretions.

At the time of publication of Zade's [11] article, in 1905, on postoperative acute gastric dilatation or gastromesenteric ileus, as he termed it, the American surgeons were becoming aware of the seriousness of acute dilatation of the stomach, with Ochsner,[12] Finney,[13] and Bloodgood [14] reporting their observations. Finney felt that acute dilatation of the stomach and gastromesenteric ileus could not be differentiated; but Lewellys F. Barker,[15] in his discussion of Finney's reports, in 1905, advanced a differential diagnosis by the examination of the gastric contents for pancreatic ferments. It was also his suggestion that duodenojejunostomy be substituted for gastro-enterostomy, which had been found unsatisfactory.

Chronicity of this condition with clinically acute exacerbations was described by Bloodgood [16] in 1907, when he also proposed duodenojejunostomy as the proper operative procedure. The first duodenojejunostomy for chronic gastromesenteric ileus was performed by Stavely [17] in 1907, and reported by him, in 1908, as having been successful (Fig. 3).

Bloodgood in 1907, Stavely and Codman [18] in 1908, described and emphasized the chronic and more common condition of obstruction of the duodenum, and it is this time period which marks the recognition of a clinical entity termed chronic gastromesenteric ileus, chronic duodenal stenosis, chronic duodenal stasis or ileus, chronic intermittent duodenal obstruction and unstable or irritable duodenum.

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Read before the General Surgery Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

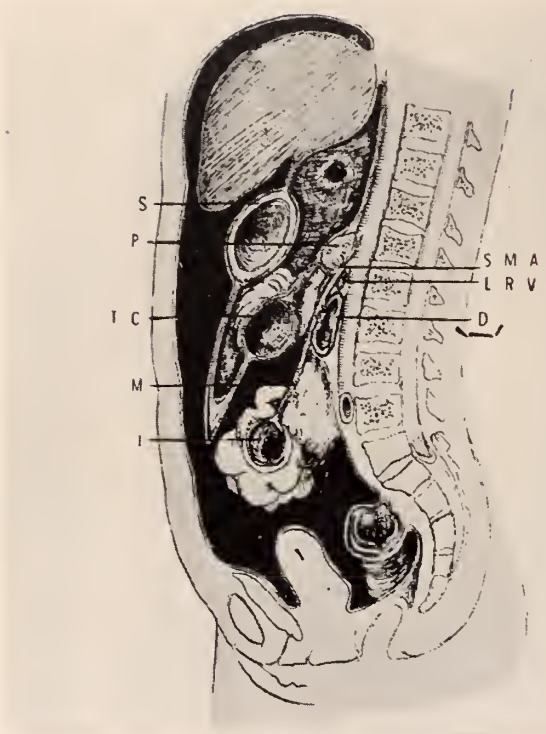


Fig. 2a

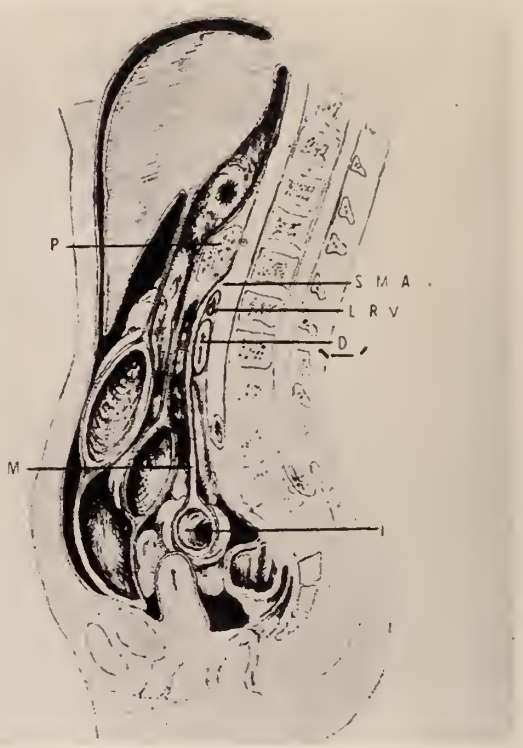


Fig. 2b

Fig. 2a.—Transverse section of the normal duodenum (modified from Gray's Anatomy). S., stomach; P., pancreas; T.C., transverse colon; M., mesentery; I., ileum; S.M.A., superior mesenteric artery; L.R.V., left renal vein; D., duodenum.

Fig. 2b.—Drawing showing compression of the duodenum in the enteroptotic female. P., pancreas; M., mesentery; I., ileum; S.M.A., superior mesenteric artery; L.R.V., left renal vein; D., duodenum.

From J. McKenty: Chronic Duodenal Stenosis. (Permission for reproduction obtained from S. G. & O., and from author.)

Since 1908 the subject of chronic duodenal stasis has been kept before the medical profession, but little has been added to the earlier observations of symptoms and treatment. Papers by such authors as Wilkie,[19] McKenty,[20] Higgins,[21] Shattuck and Imboden,[22] and Friedenwald and Feldman,[23] are worthy of study.

AUTHOR'S PRESENTATION

My purpose in again presenting this subject is to emphasize the fact that certain symptoms may be so prominent that their cause is sought for elsewhere than in the toxicity of obstructed duodenal contents. I refer to those cases of chronic duodenal stasis with symptoms suggesting migraine.

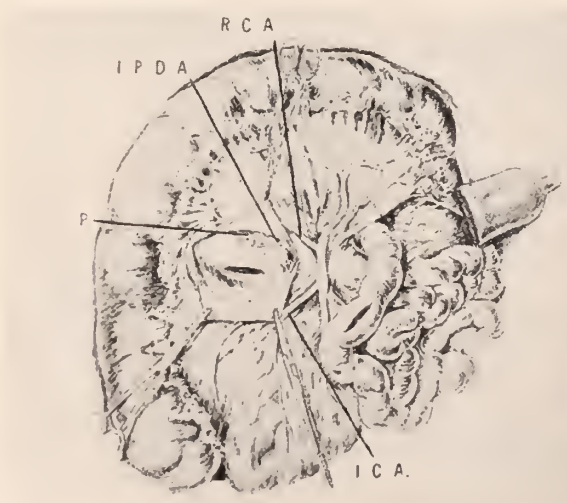


Fig. 3a



Fig. 3b

Fig. 3a.—The duodenum is exposed between the right colic and ileocolic arteries. R.C.A., right colic artery; I.C.A., ileocolic artery; P., pancreas; I.P.D.A., inferior pancreatico-duodenal artery.

Fig. 3b.—An additional stitch is placed to prevent angulation. R.C.A., right colic artery; I.C.A., ileocolic artery; M.C.A., middle colic artery; D., dilated duodenum; S.M.A., superior mesenteric artery.

From J. McKenty: Chronic Duodenal Stenosis. (Permission for reproduction obtained from S. G. & O., and from author.)



Fig. 4.—Roentgenogram, Case 1, showing chronic duodenal stasis.



Fig. 5.—Roentgenogram, Case 2, chronic duodenal stasis. Duodenum visualized to the fourth portion.

or facial and cervical neuralgia, or even intracranial involvement.

I have abstracted the protocols of three illustrative cases which were referred because of neurological symptoms. A careful history in each case, a review of the physical and laboratory findings, and the confirmation by roentgenographic studies of the condition of chronic duodenal stasis led to the proper medical and postural treatment with relief of all symptoms, including the paramount neurological complaints.

REPORT OF CASES

Case 1.—Mrs. L. A. M., A-277, age fifty-six, was admitted to the Stanford University Hospital on May 8, 1930, with the complaint of burning in the stomach for fourteen months, following an attack of influenza. The convalescence was prolonged with gastric distention, sour eructations, anorexia, nausea and vomiting, constipation, vertigo, tinnitus, severe headaches, and loss of fifty pounds in weight. Appendectomy a year ago brought no relief. Examinations of the patient, and of the urine and stools were negative. The Wassermann was negative. Her blood pressure was 125/85. Impression: possible migraine or gastric neurosis and psychoneurosis. Gastric analysis showed normal acid and low volume. Gastro-intestinal roentgenographic series showed chronic duodenal stasis (Fig. 4). The gall-bladder visualized normally. Treatment in the hospital consisted of frequent feedings, followed each time by the knee-chest position for fifteen minutes, and bed rest with the foot of the bed elevated. Gastric and neurological symptoms improved in three days, and the patient was discharged after a week of postural therapy with frequent feedings of selected bland diet. A belladonna and bromid mixture was prescribed and used in the hospital as well as at home, where bed rest was continued for a month. A report seven years later stated that she had experienced no return of symptoms, and had regained the fifty pounds in weight.

* * *

Case 2.—Miss M. M., was seen by her physician in 1933, complaining of a bad headache, present for a period of years and, apparently, of a familial type. Two attacks of giant urticaria during the previous year were attributed to an allergic type of migraine. The headaches recurred every two to three weeks and were associated with nausea and vomiting. The day before the headache occurred she would be particularly hungry, and thirty hours after eating the headache would be intense, and she would vomit all the food she had taken. Thyroid extract was given for a low basal metabolic rate, but without relief, and the attacks became became more frequent and severe. Roentgenologically, an ulcer on the greater curvature was seen. However, on exploration, the stomach was normal, though the jejunum appeared to be pinched at the ligament of Treitz, and the constricting band was cut. Convalescence was uneventful, and the patient had no further trouble for a year, at which time the attacks recurred. I was asked to see her because of the severe headaches. Roentgenograms of her upper intestinal tract at this time revealed chronic duodenal stasis (Fig. 5). Relief was secured by dietary and postural measures.

* * *

Case 3.—Miss E. M. K., A-59261, age sixteen, in the fall of 1936 complained of dizziness, headaches, vomiting, and some abdominal pain. A year before, a right radical mastoidectomy was followed by an uneventful convalescence of three weeks. A month later dizziness developed, and tinnitus appeared in the right ear. Nausea, with vomiting, occurred after meals, no matter how small the amount of food taken. Occasional colicky pains in the right lower quadrant were accompanied by tenderness in this region. Recently the mild bitemporal headaches became severe and bursting in character. Vestibular tests showed evidence of bilateral labyrinthitis, but there was no spontaneous nystagmus, nor other neurological signs. Impression: brain abscess and subacute appendicitis. However, these complaints in a thin, asthenic type of patient suggested chronic duodenal stasis, and this was confirmed roentgenologically (Fig. 6). The proper dietary and postural measures completely relieved the patient of all symptoms.

In four other patients the symptoms led to prompt roentgenological studies of the upper intestinal tract, which showed the characteristic picture of chronic duodenal stasis. Medical and postural measures gave successful results in each case.



Fig. 6.—Roentgenogram, Case 3, chronic duodenal stasis. Visualization of the third portion of duodenum before treatment.

ETIOLOGY

In this paper consideration of the etiological factors will be limited to the form of chronic duodenal stasis resulting from pinching of the third portion of the duodenum between the root of the mesenteric vessels and the aorta. The same clinical features may be produced by congenital anomalies such as atresia, certain duodenal diverticula, annular pancreas, short mesentery and peritoneal bands. Another factor in its production may be the formation of adhesions such as those angulating the duodenum in certain cases of chronic cholecystitis, or chronic inflammatory thickening of the mesentery, or enlarged retroperitoneal or mesenteric glands, or inflammatory thickening of the ligament of Treitz, or the kinking of the duodenojejunal angle.

Spinal deformities, especially lordosis, low position of the duodenum, excessive motility of the colon, and the pelvic position of the intestines in visceroptosis, are also factors that favor compression of the duodenum.

In man, the third and fourth portions of the duodenum lie behind the peritoneal fold, and that portion behind the root of the mesentery has a flattened to ovoid form. Finney's [13] illustrations in 1906 emphasized the duodenal compression by the root of the mesentery in the erect posture, whereas the anatomical relations of these structures are best suited to the postures assumed by quadrupeds, as illustrated by Codman.[18] McKenty [2] felt that a loose cecum with an elongated parietocolic fold, having its support from the mesentery of the small bowel, is the important factor in the mesenteric occlusion of the duodenum.

SYMPTOMS

The stasis of duodenal and gastric secretions present a variety of symptoms, some of which are due to the toxicity of the duodenal contents. Indigestion and flatulency frequently are experienced one to three hours after meals. If the pylorus is tonic there may be pain, frequently burning in character, in the epigastrium; but if the pylorus is atonic and patulous, the duodenal contents regurgitate into the stomach, and vomiting, without pain, is a common symptom. The vomitus may be copious and, when it contains bile and pancreatic juices, suspicion of a dilated duodenum is aroused, especially in a visceroptotic patient.

Stavely,[17] in 1908, as well as subsequent authors, emphasized the lassitude, malaise, and particularly the headaches, usually frontal or temporal, frequently intense and dominant. Temporal, facial, cervical and scapular pains may be severe and suggest an atypical neuralgia. An associated vertigo may be present. The vomiting, headache, vertigo and other neurological symptoms, are suggestive of migraine or increased intracranial pressure.

After copious emesis, the so-called "bilious attacks" with their toxic symptoms are relieved. The patient quickly associates the taking of food with the onset of symptoms and fears to eat, thus producing a vicious circle, with ensuing loss of weight, anemia, and associated abdominal symptoms that may suggest cholecystitis or appendicitis. Constipation is the usual condition, but it may be accompanied by intermittent diarrhea when some of the toxic contents pass through into the lower intestines.

SIGNS

Examination reveals that most of the patients belong to the asthenic type with evidence of visceroptosis. Some show epigastric tenderness, slight secondary anemia, low blood pressure, and evidence of vasomotor instability.

Gastric analysis is not very helpful, but the roentgenological evidence is well defined and characteristic, permitting a definite diagnosis. Increased motility with duodenal peristalsis, and antiperistalsis and regurgitation of the barium into the stomach are seen by fluoroscopy. Four hours after the barium meal the dilated portions of the duodenum are usually visualized, particularly if the roentgenograms are taken with the patient in the upright position, front view and profile, then lying down, first in the ventral and then in the dorsal position.

TREATMENT

The majority of cases respond to medical therapy and postural treatment. In the case of acute dilatation of the stomach the repeated use of the stomach-tube is supplemented by postural treatment, including the prone position, the knee-chest position and the left lateral position, with the hips elevated. Likewise, in the treatment of chronic duodenal stasis dietary measures are supplemented by bed rest and the same postural treatment just mentioned.

Certainly, bed rest, with the foot of the bed elevated one to two feet, avoidance of the dorsal decubitus, and use of the lateral position, right or left, as frequently as possible, and the knee-chest position for fifteen or more minutes after meals, will overcome the stasis produced by compression of the duodenum by the root of the mesentery. Frequent feeding, every two to four hours, of a

bland, low residue diet, with high caloric and high vitamin value, will increase weight and, in time, deposit fat in the mesentery and improve the visceroptosis.

Abdominal exercises are instituted to strengthen the recti muscles. When the patient becomes ambulatory, a supporting corset or girdle is applied before arising, and worn when in the erect position to overcome the traction of the mesenteric pedicle and of the stomach.

Phenobarbital or bromids should be employed, and liquid petrolatum and agar used for constipation.

A small group of patients may not respond to such medical and postural measures. They usually show subsequent roentgenological evidence of duodenal stenosis, either from obstruction at the duodenojejunal angle, or duodenal fixation from adhesions, with gastric retention. In these patients conservative surgical measures will bring relief, such as division of constricting bands to the duodenum, or separation of adhesions of the mesentery in the pelvis, or suspension of the cecum and ascending colon or, where the cause of the mesenteric compression cannot be discovered, duodenojejunostomy. The postoperative care of these patients is important, with the employment of suitable diet, massage, postural treatment, and an abdominal belt during convalescence.

SUMMARY

The recognition of a clinical entity of chronic duodenal stasis thirty years ago was intimately associated with the recognition and treatment of acute dilatation of the stomach.

Compression of the third portion of the duodenum by traction on the mesentery containing the superior mesenteric vessels is a frequent cause of chronic duodenal stasis.

Symptoms of toxicity of the duodenal contents, lassitude, malaise, neuralgic pains, vertigo, and intense headaches may be paramount to the general symptoms of abdominal discomfort, indigestion, flatulency, vomiting, and constipation. When certain of these neurological symptoms are prominent, the picture may suggest migraine, atypical neuralgia, or even brain tumor.

Bilious attacks, with copious vomitus containing bile and pancreatic secretions, associated with headache and constipation, in an asthenic individual suggest chronic duodenal stasis.

The diagnosis is confirmed by roentgenological studies that reveal active peristalsis and antiperistalsis in a dilated duodenum.

The majority of cases will respond to medical and postural treatment, which include rest in a bed with its foot elevated one to two feet, frequent lateral and prone positions, the knee-chest posture for fifteen minutes after each meal, high caloric, high vitamin bland food taken every two to four hours, exercises to strengthen the abdominal wall, and the application of a supporting belt (which must be put on while the patient is in a recumbent position) when ambulatory.

Conservative surgical measures, as the last resort, include division of bands and adhesions, fixation of a mobile colon, or duodenojejunostomy.

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DISCUSSION

Nelson J. Howard, M. D. (2957 Divisadero Street, San Francisco).—We are indebted to Doctor Reichert for his review of the anatomical and physiological factors producing occlusion of the third part of the duodenum through extraduodenal pressure. The symptom-complex of periodic severe headache, followed by copious vomiting usually of bile-stained material, deserves the reëmphasis given by Doctor Reichert. Awareness of this syndrome, and the

possibility of chronic duodenal stasis, will help the physician solve diagnostic difficulties, and with the conservative treatment outlined, the patients may be spared years of discomfort and ill health.

One personal experience:

Miss M. H. suffered for seven years from headache and insomnia. She was under treatment in the Stanford Clinic and had her teeth extracted, a nasal septum operation, glasses corrected, without relief. Laboratory investigation revealed no abnormal findings. Spinal puncture showed no increased pressure or pathological changes in the fluid. X-rays finally revealed what was interpreted as a large diverticulum of the second portion of the duodenum. By this time the patient had developed vomiting; severe, constant abdominal pain, and tenderness. Operation showed a duodenal stasis from encirclement of the duodenum by an annular pancreas.

Particularly is Doctor Reichert to be commended for showing us the effectiveness of simple conservative measures in most cases of chronic duodenal stasis.

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John Homer Woolsey, M.D. (Woodland Clinic, Woodland).—Chronic duodenal stasis is without doubt a clinical entity. It has been in the past recognized more often by a process of elimination than by direct diagnosis; but with the symptomatology better understood, it will become a condition more often thought of and, therefore, should be more promptly diagnosed. It is by the x-ray in competent hands that these clinical entities are being definitely demonstrated, and then proper treatment instituted. It follows, therefore, that the rule—that any patient with a gastro-intestinal complaint which does not respond to treatment under three weeks of proper and adequate diet and rest should have an adequate study of the gastro-intestinal tract by a competent roentgenologist—is most worth while.

As regards treatment, I am heartily in accord with conservative, or dietary and postural measures. Surgery should be employed only for the very severe or obdurate cases, and in those instances where a definite localized block more amenable to surgical correction has been demonstrated.

Duodenojejunostomy, performed according to the method without clamps, and with the mesocolon stitched well back on the duodenum, will, I believe, give a good result; but duodenojejunostomy as done, has not, from my observation, afforded the relief expected and desired.

EAR MANIFESTATIONS FOLLOWING HEAD INJURIES*

By Frank Hand, M.D.
San Francisco

Discussion *by Harold A. Fletcher, M.D., San Francisco; Ben L. Bryant, M.D., Los Angeles; William J. Mellinger, M.D., Santa Barbara.*

INJURIES to the head are of interest to otologists, because many of them affect the ear mechanism in one or both of its divisions. It has been my observation that the severity of the injury often bears no relation to the development of cochlear or vestibular symptoms.

DIMINISHED HEARING

The most common ear symptom encountered following head injuries is a nerve deafness characterized by a decrease in hearing for high tones. The next symptom in order of frequency is labyrinthine vertigo, which is manifested by dizziness and aggravated by quick head movements.

Diminished hearing can easily be demonstrated by means of a careful hearing examination. The addition of the audiometer to our equipment has now greatly simplified this procedure, as well as given us a better record of hearing losses than we were able to obtain by the older methods. I might add also that a malingerer, claiming a hearing loss, may now be more easily detected by repeating this test several times. In a series of hundreds of audiometer tests repeated on coöperative patients, I have found that the readings will not vary more than 2 or 3 per cent.

LABYRINTHINE SYMPTOMS

The presence of labyrinthine symptoms may be demonstrated by quick head movements, or by the more accurate caloric and turning tests. Fortunately for the examiner in some insurance cases, the symptom of nystagmus is independent of the will and it is impossible for a malingerer to stimulate nystagmus.

In testing for labyrinthine symptoms the examiner must remember that these symptoms may be caused by other conditions than head injuries. He may encounter this symptom-complex in patients suffering from syphilis, also in patients with nicotin, alcohol, lead or carbon monoxid poisoning. Toxic labyrinthitis may develop secondary to a focal infection, and labyrinthine symptoms may appear as a manifestation of menopause. When any of these conditions are present, a hearing examination will often reveal the added symptom of nerve deafness.

THREE TYPES OF HEAD INJURIES

Three types of head injuries may produce a hearing loss and labyrinthine symptoms: First, concussion of the brain without skull fracture. Second, concussion of the brain with skull fracture, but not involving the petrous portion of the temporal bone. Third, concussion of the brain with skull fracture which involves the petrous portion of the temporal bone.

CONCUSSION OF THE BRAIN WITHOUT SKULL FRACTURE

Following a concussion of the brain, with or without skull fracture, we often see an increase in brain pressure. The brain substance, cerebrospinal fluid and blood vessels are all affected. The brain substance is compressed and may swell as a result of trauma. The blood vessels of the brain may become dilated and the circulation become sluggish because of a traumatic paralysis of the vasoconstrictor center. Exudate and lymphocytes may go out from the blood vessels into the brain substance. This circulation phenomena may persist after injury, and may be characterized by a concussion neurosis, namely, vasomotor instability, irregular pulse, and poor memory.

If the lateral ventricles are compressed, cerebrospinal fluid is forced into the third ventricle, then through the aqueduct of Sylvius into the fourth ventricle. The increased pressure on the floor of the fourth ventricle may affect the nuclei of the auditory nerve situated there. Degenerative changes may take place in these nuclei causing ear symptoms.

* Read before the Eye, Ear, Nose and Throat Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

An artery from the brain supplies the inner ear. The same sluggish circulation, which is present in the brain following concussion, is also present in the labyrinth. Exudate and lymphocytes may go into the labyrinth the same as into the brain substance. This condition is called serus labyrinthitis, and is produced by vasomotor changes and not by infection. The swelling of the brain substance and increased intracranial pressure may cause pressure on the internal auditory meatus. It also causes pressure on the ductus endolymphaticus, located on the posterior surface of the petrous pyramid, resulting in an increased intralabyrinthine pressure.

It appears, therefore, that ear symptoms, following a concussion of the brain, with or without skull fracture, may be caused by degenerative changes in the ear nuclei on the floor of the fourth ventricle; to sluggish circulation in the labyrinth, with the formation of exudate and lymphocytic infiltration, or to an increased intralabyrinthine pressure.

WITH PETROUS INVOLVEMENT

In the case of a fracture through the petrous portion of the temporal bone, additional symptoms may be encountered. These symptoms will depend on whether or not the fracture is of the longitudinal or crossing type. The typical longitudinal fracture starts in the region of the tegmen and progresses to the roof of the eustachian tube. It is the common middle-ear fracture, and is often combined with fractures in the middle and anterior fossae. This fracture is linear in the majority of cases, and if it has branches they usually extend into the mastoid process or into the superior wall of the bony external canal. The inner ear is not involved. The membrana tympani is ruptured in about 90 per cent of these cases. Blood is usually seen in the external ear canal, and it may be accompanied by cerebrospinal fluid. A step may be seen in the superior wall of the ear canal, and the drum looks black due to the blood in the middle ear. X-ray findings are helpful, if positive, but in some cases the fracture is so fine it cannot be demonstrated. No attempt should be made to clean the blood from the ear canal immediately after a fracture, or to do a careful ear examination, for fear of introducing infection into the middle ear. A piece of sterile cotton should be placed in the ear canal and the patient watched for evidence of beginning middle-ear infection, in addition to other general measures.

Crossing fractures of the temporal bone usually start in the region of the jugular bulb, cross the pyramid and end on its anterior surface. They are often combined with fractures of the posterior fossae. In this type of fracture the vestibule is completely destroyed and the facial nerve is usually involved. The middle ear may or may not be affected. The fracture may extend between the oval and round windows, permitting the introduction of infection from the eustachian tube into the meninges. The drum is usually normal. This fracture is easier to demonstrate on an x-ray film than a longitudinal one. These patients usually die; but should they live they will have a total loss of hearing on the affected side. There is danger of meningitis developing during the remainder of the patient's life, as these fractures do not heal by bony union, but by the formation of connective tissue.

Should a patient have a chronic running ear with bone involvement at the time of the fracture, or develop an acute otitis media with temperature, a radical mastoidectomy should be done at once to lessen the danger of meningitis. A simple mastoidectomy would be worse than useless, as it would not give sufficient drainage.

COMMENT ON CASES

The following are my findings in sixty-seven patients complaining of ear symptoms following head injuries. The most common finding was impaired hearing, which was found in 58 per cent of my patients. The next finding, in order of frequency, was vertigo of labyrinthine origin, which was found in 37 per cent. Nineteen per cent of my series complained of tinnitus. Some of this group complained of a single symptom, although quite a number of them complained of all three. Five of my patients were malingerers.

The technique of vestibular and hearing tests is quite well established. Anyone unfamiliar with these tests can acquaint himself with them by a study of any text on this subject, and a small amount of practice. The interpretation of findings is the most difficult part of this procedure. A good history, taken by the examiner himself, will be found most helpful. I always inquire whether or not the patient was unconscious and, if so, for how long. The patient's memory for events immediately subsequent to the accident will give the examiner some idea as to the severity of the injury. A history of bleeding from the nose will make one suspect a fracture through the anterior fossae, and a history of bleeding from the ears will suggest a linear fracture through the middle fossae. The time which has elapsed since the injury is of the utmost importance in the interpretation of findings and at arriving at a prognosis. The age of the patient is a definite factor. If the patient complains of vertigo, it is important that the examiner have him tell in his own words the exact type of vertigo. Unless a turning or rotary vertigo is complained of, we may suspect that it is not of labyrinthine origin.

I sense, from conversations with other physicians regarding patients suffering from head injuries, that a common false opinion prevails, namely, that unless a hyperirritability of the labyrinth can be demonstrated by means of caloric and turning tests, the patient is a malingerer. They are unaware of the fact that the important point for consideration is not whether the patient has a hyperirritability of the labyrinth, but whether or not there is a difference in the irritability of the two sides. Grove concludes that a decompensation between the two labyrinths, or a decompensation between the two central nuclei, or both, may be responsible for vertigo, which conforms with my experience.

LABYRINTHINE TESTS VARY

I have found that labyrinth tests done soon after a head injury will show a hyperirritability of the labyrinth on one or both sides. The same patient, examined several months later, will more often than not show a hypoirritability of the labyrinth,

but may complain of vertigo as much as when a hyperirritability of the labyrinth could be demonstrated. Brunner contends that in case of damage to the vestibular region, or to the conducting nerves, there is never more than a transitory irritability. He further maintains that any anatomical damage in these regions would cause a decrease rather than an increase in function.

Grove, in his study of three hundred cases of head injuries, concludes that a difference in the irritability of the two sides is of far greater importance in the production of vertigo than hyper- or hypoirritability. He also states that one sign of traumatic vestibular disease is an unequal response to an equal stimulation of the two ears; a disturbance based on a lower irritability of the injured side.

PLACE OF THE OTOLOGIST IN HEAD INJURIES

I believe that patients should be seen by an otologist as soon as practical after a head injury. Furthermore, they should be examined at regular intervals if one expects a true concept of the relationship of trauma to the patient's condition. Hyperirritability of the labyrinth is much easier to demonstrate by labyrinth tests than is a relatively small difference in the irritability of the two sides after a previously hyperirritable labyrinth has become hypoirritable. Unfortunately for the otologist and the patient, these people are usually not seen for labyrinth examinations until several months after the head injury.

Vertigo is so disabling that compensation patients incapacitated by this condition must be regarded as having a degree of permanent disability, for we have no satisfactory treatment for this condition. The vertigo may even become worse in patients with arteriosclerosis. In two of my patients it was so severe and the tinnitus so annoying that it was necessary to have a neurosurgeon cut the eighth nerve for relief.

Loss of hearing for low tones, due to damage in the middle ear, will show some improvement after the absorption of the blood-clot. However, these patients often have some hearing loss due to the development of a chronic adhesive process. Hearing loss in the uppter-tone range is usually due to damage to the basal coil of the cochlea, and is apt to remain permanent or even grow worse in time.

IN CONCLUSION

Summarizing, I find:

1. The most common ear symptom following head injuries is a nerve deafness characterized by a loss of hearing for high tones. The next symptom in the order of frequency is labyrinthine vertigo, which is manifested by dizziness and aggravated by quick head movements.

2. Ear symptoms following head injuries may be caused by degenerative changes in the ear nuclei; to sluggish circulation in the labyrinth or to increased intralabyrinthine pressure.

3. The technique of hearing and labyrinth testing is comparatively simple, but the interpretation of these findings is much more difficult.

4. Hyperirritability of the labyrinth is frequently followed by hypoirritability of the affected side. This is much more difficult to determine than the previously existing hyperirritability.

5. Patients with head injuries should be seen by an otologist as soon as practical after the injury and again at regular intervals if one expects to arrive at a true concept of the relationship of trauma to the patient's symptoms.

6. The findings from vestibular and hearing tests should be more generally used following head injuries. They are often helpful in determining the degree of disability, as well as whether the symptoms are on an organic or functional basis.

490 Post Street.

DISCUSSION

Harold A. Fletcher, M.D. (490 Post Street, San Francisco).—The subject of ear manifestations following head injury is one of great interest to the otologist. Since the formation of the Industrial Accident Commission, head injuries following industrial mishaps have come under much more complete study and care. With the tremendous number of injuries involving the skull and brain, as met with in automobile accidents, further extensive studies have been brought to the brain surgeon. The otologist, in many instances, is able to throw light on obscure points in many of these patients. In many cases both hearings before the Industrial Accident Commission as well as expert testimony in the matter of public liability damage suits, it has become necessary for the otologist to be able to diagnose, analyze, and be able to testify as to his findings. Because of the widespread distribution of both the cochlea and the vestibular nerves in the brain, as well as the importance of the peripheral end-organ findings, many of these cases need careful examination and judgment of the otologist in order to clarify their condition.

From the standpoint of loss of hearing, as Doctor Hand states, most of these head-injury cases which have ear symptoms have, also, loss of hearing of the internal ear or nerve-deafness type. Many times, however, a diagnosis of nerve impairment is made through a definite loss of bone conduction, which is brought out by a test. It must not be forgotten, in this respect, that loss of bone conduction may be present because of a fracture of the skull rather than from a nerve impairment. Without any impairment of hearing at all in most cases of skull fracture, there is a more or less permanent reduction of the bone conduction, which is often marked. It is often very difficult to state whether the loss of hearing is secondary to the injury, or whether it was a progressive form of impairment. Careful study and careful history taking, and careful judgment only on the part of the examiner, will clear up these factors.

The symptom of vertigo in these head-injury cases is one of intense interest, particularly for the otologist who is capable of making a proper vestibular examination, and who is able properly to analyze his findings. Vertigo is a very common symptom following any head injury. This symptom may be a true vertigo, with a definite organic disturbance as its foundation. In the majority of head-injury cases, however, the symptom of vertigo is not a true vertigo, but comes under the head of a functional disturbance, and has no organic lesion behind it. It is the duty and the responsibility of the otologist to distinguish between these two forms. It is of greatest importance that this distinction be correctly made, as in the case of the organic lesion with its symptoms of a true vertigo secondary to intracranial disturbances the vertigo will probably last over a long period of time, and often permanently, and will, therefore, create a definite long-lasting or permanent disability of a fairly high rating. If, on the other hand, the vertigo complained of is shown to be a functional affair with no organic disturbance behind it, these cases come under the heading of a post-traumatic neurosis when the treatment is entirely different, and the symptoms clear up after a few months to a year or slightly more, other things being equal.

The purpose of the otological examination, or rather the neuro-otological examination in this case, is to determine whether we are dealing with a normally reacting labyrinth or not. If the labyrinthine tests show a normally functioning labyrinth, we are safe in assuming that there has been no organic destruction and no organic trouble of

the labyrinth or along the labyrinthine pathways. If the tests show an abnormally functioning labyrinthine apparatus, it is necessary to determine whether the trouble is in the peripheral end-organ, or whether it is of a central nature, along the intracranial pathways. If the trouble is of a peripheral nature, the condition is usually of more or less short duration, and compensation and readjustment take place within a reasonable length of time. If, on the other hand, tests show an intracranial organic involvement of the labyrinthine pathways, the duration will be of a much greater length of time, and probably permanent.

I cannot agree with Doctor Hand that the vestibular examination is one easily and quickly learned from the textbooks. Among the many otologists of my acquaintance, I have found only a very few who are in any way capable of making these tests correctly or interpret them intelligently. There is a wide variation of normal responses, knowledge of which must be obtained through practice and observation. The reflex reactions from both turning and caloric tests are very complicated, and if there is a wide variation of normal in the simple knee-jerks, how much more variation within normal limits might we expect to find in such a complication of reflexes from the various parts of the labyrinth. Doctor Hand is certainly correct in saying that the interpretation of abnormal findings is difficult. Only careful studies of the normal, and knowledge of the labyrinthine apparatus, both as the peripheral end-organ as well as the intracranial pathways, are fundamental in making interpretations of the test. When one adds to this the many different pathological conditions which can influence both the peripheral end-organ as well as the intracranial pathways, great care and study is necessary to properly evaluate one's findings. To me the study of labyrinthine reactions, both normal as well as pathological, have been the most interesting and stimulating of all of my ear work; and particularly interesting have been the cases of head injuries, both those who have been recently injured and those who were injured months or years previously, yet who still have symptoms or vertigo.

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Ben L. Bryant, M. D. (2007 Wilshire Boulevard, Los Angeles).—From a medico-legal aspect, the otologist is concerned with no question more frequently than that of subjective symptoms following a head injury, and yet far too seldom is he permitted to see the patient early enough after the injury, and to follow the course of events long enough and with sufficient regularity of examination, to enable him to express an intelligent and dependable opinion. Hence, a paper such as Doctor Hand's, with certain of the points which he has presented, is timely and engaging.

It occurs to me that, although the scope of this paper does not include a consideration of the damage done to the ear by the accidental or intentional introduction of hot liquids or chemicals, there should be some mention made of injury by mechanical agents, such as sudden changes in air pressure. This condition is seen in linemen subjected to an electric "flash," and in caisson workers, divers, and occasionally in aviators. Since the symptoms in these cases are the result of extravasation of transudate and blood into the tympanum and labyrinth (and sometimes even by gas emboli from the blood being deposited there), they have some aspects in common with the type of cases under discussion.

In the actual concussion cases, the importance of examining the patient as soon as possible was emphasized even by Politzer, who wrote on this subject before the physiology and pathology of the areas in question were understood as well as they are at present, and it has been reiterated by many writers since. He counseled further against giving a definite opinion too early, because of the apparent paradoxes, for at times an individual who seems to be very badly injured will make a surprisingly rapid and complete recovery, whereas another who seems to have only a slight injury will subsequently develop symptoms which are more and more marked. It is always necessary to utilize every source to determine the patient's condition and state of health previous to the accident, and particularly whether any cochlear or vestibular symptoms had ever been present.

H. Beyer, in a recent article in the *Zeitschrift für Hals-Nasen- und Ohrenheilkunde*, in discussing concussions of the head, elaborates on the subsequent disturbances of the eye muscles which he feels are often overlooked in a consideration of the vestibular symptoms. He cites a number of instances in which he feels that the patient's visual symptoms were due to the inequality in speed and extent of the movements of the two eyes. His patients had marked vasomotor symptoms. He describes, as have others, a variety of findings that are similar to those found in tumors of the pons and medulla, and concludes that they are due to circulatory changes in the brain stem, in the form of alternating spasms and dilatations of the vessels.

These conclusions concur with a part of those previously reached by Linthicum, whose work on this subject has done much to clear the mist that for so long surrounded it. Linthicum's careful and exhaustive study of a series of concussion cases brought him to emphasize particularly that the injury was to the inner ear and the intracranial pathways, or to these pathways alone, convincing evidence being found in the anomalies noted between past-pointing and nystagmus, between postural vertigo and nystagmus, between the severity of symptoms and spontaneous phenomena, between vestibular derangement and auditory function, and between spontaneous vertigo and induced vertigo. Abnormalities in the past-pointing reactions were the most constant findings.

Although Linthicum was not able to group the postconcussional labyrinthine findings into a definite symptom-complex, he did find that disturbances of equilibrium arising in the end-organ are more apt to readjust themselves than those of central origin, and, therefore, he has given us a further aid to prognosis, if we can determine, when we examine the patient, whether peripheral or central involvement is preponderant.

No longer can crude and superficial tests be accepted as sufficient in these cases, particularly when the question of compensation and insurance is so often in the foreground, and we have come to realize that no postconcussional patient can be dismissed as neurotic or as a malingerer until he has been subjected to careful neuro-otologic tests.

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William J. Mellinger, M.D. (1725 State Street, Santa Barbara).—This most timely paper suggests to me for discussion our responsibility as medical men in the determination of the degree of damage in patients with head injuries. The extent and location of the physical injury and the surgical management of the cases are, I believe, very well understood, but I am quite sure that the psychic and neurological phases of the problem are sadly neglected. Many patients are insurance cases, and settlements are made following the testimony of physicians who are not aware of or at least do not take into account the possibility of delayed effects resulting from infection, and trauma of the brain and the sense organs. These delayed effects may manifest themselves in altered mental behavior of serious consequence, and a failure to consider this possibility may result in gross injustice to the patients involved. The legal profession seems intent upon getting quick settlements for clients in accident cases and may not be so earnestly determined to secure justice for all concerned. The injured are often unable to secure proper legal advice and competent expert testimony. Expert testimony may not always be based upon careful study and analysis of the cases under consideration, and may overlook entirely possible developments which may occur within the next few weeks or months. An annoying tinnitus, a persistent headache or ocular disturbances may be accompanied by, or even produce, certain neuroses resulting in mental deterioration which may eventually reduce a useful citizen to a state of invalidism or even to being a public charge. I would, therefore, plead for a more careful neurological study of patients with head injuries, and urge that more careful records be kept over more extended periods of time. These would enable us in the future to be better qualified to pass judgment on the probable consequences of head injuries.

The author calls attention to the fact that transverse fractures of the pyramid of the temporal bone always involve the labyrinth and may result in defects in hearing and vertigo; and that the fracture never heals by bony union, so that the patient is in great danger of cranial involvement for the rest of his life, particularly in the event of an upper respiratory infection. This should always be borne in mind in estimating the probable results of head injuries involving the pyramid of the temporal bone, and the patients involved should be made aware of the possibilities and instructed to take the necessary precautions to prevent, so far as possible, upper respiratory infections.

ANOMALIES OF THE SPINE*

A CORRELATION OF ANATOMICAL, ROENTGENOLOGICAL, AND CLINICAL FINDINGS

By Wilbur Bailey, M.D.
AND
Ray A. Carter, M.D.
Los Angeles

Discussion *by Paul E. McMaster, M. D., Los Angeles; Harold E. Crowe, M. D., Los Angeles.*

FROM an anatomical standpoint the spine is such an exceedingly complicated structure, and consists of so many individual parts, that one might almost expect to find abnormalities of development as the rule rather than the exception. As a matter of fact, as many as 67 per cent of spines do show some such variations.

Since abnormalities are so frequent and of so many varieties, it is of considerable importance, from a clinical standpoint, to know which types may be properly regarded as likely to produce symptoms, and which types may safely be considered as without clinical significance. Of equal interest is the fact that certain anomalies may present an appearance which must be differentiated from old or recent injury.

DEVELOPMENT

Since all anomalies are directly traceable to developmental errors, a brief recapitulation of this process is in order. This discussion may begin at the embryonic period in which the neural canal and notochord have formed, and the mesoderm is dividing transversely to form the somites. The mesoderm by this time has differentiated so that a mesodermal paraxial mass lies on each side of the neural canal and notochord. This structure will form the future spine. Guided by dorsal intersegmental arteries, the paraxial and adjacent mesodermal masses divide transversely into segmental blocks, or somites. The blocks so formed are called the scleratomes, and are the anlage of the vertebrae. Segments are laid down for the three fused vertebrae which form the occipital bone, as are seven cervical, twelve dorsal, five lumbar and five sacral, and eight to ten caudal vertebrae. The caudal segments later degenerate, three or four coccygeal segments remaining. Variations in the number of vertebrae arise at the stage of somite division, or later by variations in the number of caudal vertebrae which degenerate.

However, a vertebra is not developed within the somite. A change occurs by which sclerotomes of two adjacent somites participate in the formation of a vertebra, and by which it thus comes to be located opposite an intersegmental septum, rather than in the somite itself. Appreciation of this point is necessary to comprehend certain anomalies and to understand the relation of the vertebra, with its processes and ribs, to the muscular structures.

Each sclerotome divides transversely into a caudal dense, and a cranial looser portion. These separate and reunite with the adjacent portion of the neighboring sclerotome. In this process the intersegmental arteries, which originally lay between adjacent sclerotomes, now come to lie within them, as is shown diagrammatically in Fig. 1.

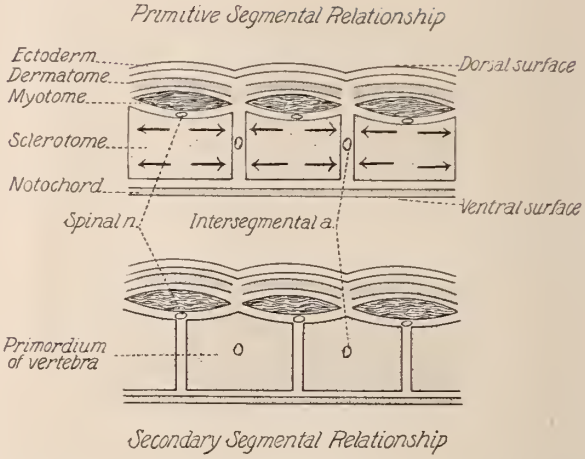


Fig. 1.—Fusion of adjacent halves of the sclerotome (as indicated by arrows), encloses the intersegmental artery within the future vertebra and brings the vertebral body opposite an intersegmental septum.

By growing to enfold the neural tube and notochord, the paired sclerotomes form the vertebrae. The neural or dorsal processes grow dorsally about the neural tube to form the neural arch. Paired medial processes enfold the notochord to become the body. Ventrolateral processes form from the costal processes. Secondary buds from the neural processes form the transverse and articular processes. Loose mesodermal tissue, not incorporated in the sclerotome, forms the intervertebral disc. The notochord in the center of the disc persists as the nucleus pulposus. Within the vertebral body it disappears. The costal processes, transverse processes, and ribs grow from the sclerotomes into the intersegmental septa, lying between adjacent somites.

The foregoing description concerns the membranous or blastemal stage of development. Varied deformities may be caused by injurious influences at this period. Nondevelopment of the neural bow will result in spina bifida. Inhibition of a ventral process will produce hemivertebra and absence of corresponding processes and ribs. Disturbances of the division, and recombination of the sclerotomes, may result in various irregularities, including unilateral supernumerary segments, or an alternation of segments in which hemivertebrae on one side lie opposite an intervertebral disc on the other. There may be associated fusion of ribs. The aberrations may be numerous and the pattern of development very disorderly. Gross deformity, particularly scoliosis, may be produced, or the multiple defects may compensate each other quite well, as in Fig. 2. More or less complete fusion of two or more vertebrae may occur. This may be related to the fact (Bardeen [1]) that at one period the mesodermal anlage of the intervertebral disc is very thin. (See Fig. 3.)

During the second, or chondrogenous stage of development, the original blastemal structures are transformed to cartilage. At this period the vertebral bows meet to complete the neural arch. Failure of development at this stage results in spina bifida.

* Read before the Industrial Medicine and Surgery Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.



Fig. 2



Fig. 3

Fig. 2.—Infant spine showing multiple developmental abnormalities, including hemivertebrae, fused vertebrae, and divided vertebral bodies. (The latter result from failure of fusion of the two centers of ossification in the body.) Numerous rib anomalies are present.

Fig. 3.—Fused vertebrae. The third and fourth cervical vertebral bodies are fused together, only faint evidence of an intervertebral disc being present. The complete fusion of the spinous processes indicates a developmental etiology.

The third, or osseous, stage of development is initiated by the appearance of centers of ossification. One forms in each neural arch and two in the body. These latter normally fuse quickly, but may remain separate so that the body ossifies from two centers. We have one case (Fig. 2) in which these centers failed to fuse, the vertebral body remaining as two separate lateral halves. Similarly, one lateral half of a body may fail to ossify and, therefore, remain cartilaginous.

The neural arch of the fifth lumbar vertebra may ossify from two centers, the cartilaginous interval lying between the superior and inferior articular processes. This weakness may permit separation, allowing the body to slide forward without support, producing spondylolisthesis.

Nothing has been said about the chronology of these stages of development, since its details are not material to this presentation. The osseous phase begins about the seventh week and prolongs itself through adolescence, so that variations of it may occur until there is complete osseous maturity. The blastemal phase begins in the earliest weeks of pregnancy with the appearance of the sclerotomes. The chondrogenous phase begins in the sixth week, and the cartilaginous neural bow is complete in the fourth month. There is thus much overlapping of the stages of development.

FUSED VERTEBRAE AND HEMIVERTEBRAE

The development of these types of anomalies has just been considered. These defects may occur at any level. In the cervical region they may be present in combination with complete absence of some segments in the neck in the so-called Klippel-Feil syndrome. Hemivertebrae often produce a marked scoliosis. The diagnosis is easily made by a radiographic examination, and there is a general agreement that such a scoliosis may produce symptoms. With the exception of small supernumerary segments it is not likely that hemivertebrae would be mistaken for fracture, and the main interest, therefore, lies in the presumably weak anatomic structure which they cause.

Fused vertebrae may have an appearance suggesting an extinct disease process which has destroyed the intervertebral disc or an old injury. Often the normal stature of the bodies or the complete coalescence of some portion, such as the spinous process, as in Fig. 3, will make possible a differential diagnosis.

SPINA BIFIDA

Failure of fusion of the spinous processes is particularly common in the lumbar and sacral regions. Unless accompanied by an actual protrusion of the soft tissues, this finding is generally considered as not significant. Cushway and Maier [2] found 156 instances of spina bifida occulta in examining the backs of 916 supposedly normal men who were applying for railroad work, and we find the incidence equally high. We are in accord with the general agreement in the literature that there is no practical or theoretical reason why minor variations or actual failure of fusion of the spinous

processes in this region should be productive of symptoms.

SPONDYLOLISTHESIS

As mentioned earlier, the primitive neural arch of the fifth lumbar vertebra occasionally ossifies in two centers instead of one. Under such circumstances, the cartilaginous interval or "isthmus" lies between the superior and inferior articular processes.

The vertebral bodies in the lumbar region are subjected to an unusual shearing stress because of their position at the weight-bearing lower end of the spine. This stress tends to make the bodies slip ventrally. Ordinarily this ventral movement is checked by the inferior articular and spinous processes. When the structure connecting these processes with the remainder of the body gives way, however, which may readily happen if it is only cartilaginous, spondylolisthesis may occur.

Out of thirty-eight cases picked at random from our material, in two the spondylolisthesis was between the fourth and fifth lumbar vertebrae instead of at the usual location, between the fifth lumbar and first sacral bodies. In these cases the separation at the "isthmus" was not so clearly seen. It is to be hoped, with the recent improvements in equipment, that six- and nine-foot lateral films will be possible. These should greatly reduce magnification and improve detail in the lumbosacral region.

TRANSITIONAL VERTEBRAE

The formation of the normal number of seven cervical, twelve thoracic, five lumbar, five sacral, and four coccygeal segments has been discussed. Variations from this formula occur in about 20 per cent of skeletons. At occipito-cervical, the cervicothoracic, thoracolumbar, and lumbosacral junction, the so-called transitional vertebrae occasionally appear, which share some of the characteristics of both groups.

The seventh cervical vertebra, for instance, may show ribs of varying lengths articulating with or, more usually, actually fused with its transverse processes. There is no doubt that cervical ribs, even when partly fibrous, may produce very definite symptoms in the upper extremities because of pressure on the brachial plexus. The great majority of the cervical ribs which come to our attention, however, are discovered as incidental findings, no symptoms referable to them being present. On the contrary, when cervical rib is suspected clinically, only in about one out of ten times is this anomaly actually found.

At the dorsolumbar junction, the twelfth dorsal vertebra may have such short ribs, or the first lumbar vertebra may have such well-developed ribs, that it will be hard to differentiate between the first lumbar and last thoracic vertebra. Under such circumstances, or when a similar question arises in the lumbosacral region, the differentiation can generally be made, when important, by examining the entire spine.

Lumbar ribs occur in about 10 per cent of spines, and sometimes cannot be distinguished from persistent epiphyses opposite the transverse processes. It is much more important, however, to differentiate these two anomalies from fracture than from each other. Any lumbar segments may show such anomalies.

The lumbosacral transitional vertebrae are characterized by the occurrence of enlarged transverse processes (the so-called costotransverse processes) on one or both sides. (See Fig. 4.)

These enlarged transverse processes may not be sufficiently large to reach either the sacrum or the ilium, but at times they articulate with the sacrum or even the ilium on one or both sides. Sometimes there is actually unilateral or bilateral fusion of these processes with the sacrum. In deciding whether large transverse processes are in contact with the sacrum, it must be remembered that the usual anteroposterior film of this region shows it at a considerable angle. If the angle of projection be changed by flexing the patient's thighs or changing the position of the tube, the effect of overlapping may disappear, and a definite space may be seen between the large transverse process and the sacrum.

If the twenty-fourth vertebra (normally the fifth lumbar) becomes united with the sacrum by bilateral bony union, the process of sacralization is complete. This may result in a six-piece sacrum. Conversely, complete lumbarization of what is normally the first sacral segment may occur—a finding which should result in a four-piece sacrum. Actually, a segment is often lost to, or borrowed from the coccyx, so that the sacrum maintains its usual quota of five pieces. By this means the actual level of transition from lumbar to sacral spine may be anywhere from the twenty-fourth to the twenty-sixth segment.

To what extent clinical symptoms are caused by lumbosacral transitional vertebrae is a much debated point. From a physiological aspect the lumbosacral articulation serves as the junction point between the rigidly fixed pelvis and the mobile lumbar spine. From the clinical aspect the frequent occurrence of low-back pain following comparatively mild trauma indicates that the lumbosacral region is a point of decreased resistance. The point of interest here is whether congenital anomalies represent additional factors of decreased resistance.

Complete lumbarization of the first sacral vertebra lengthens the lumbar spine to six segments, and therefore allows slightly increased mobility, which would, theoretically, make the spine structurally weaker. If there are two well-formed lumbosacral transverse articulations present, because of sacralization of the last lumbar vertebra, the lumbosacral junction may be strengthened, but periarthritic changes at these transverse anomalous articulations may occur, which are said to be productive of pain. Radiographically, sclerotic reactive changes are frequently found surrounding such anomalous articulations.

The incomplete and the unilateral types of enlarged costotransverse processes, many authors agree, are occasionally the cause of low-back pain and other symptoms. Those who, on the contrary, believe these anomalies cause no symptoms argue that they have been present from birth; yet symptoms do not develop until adult life, usually in the

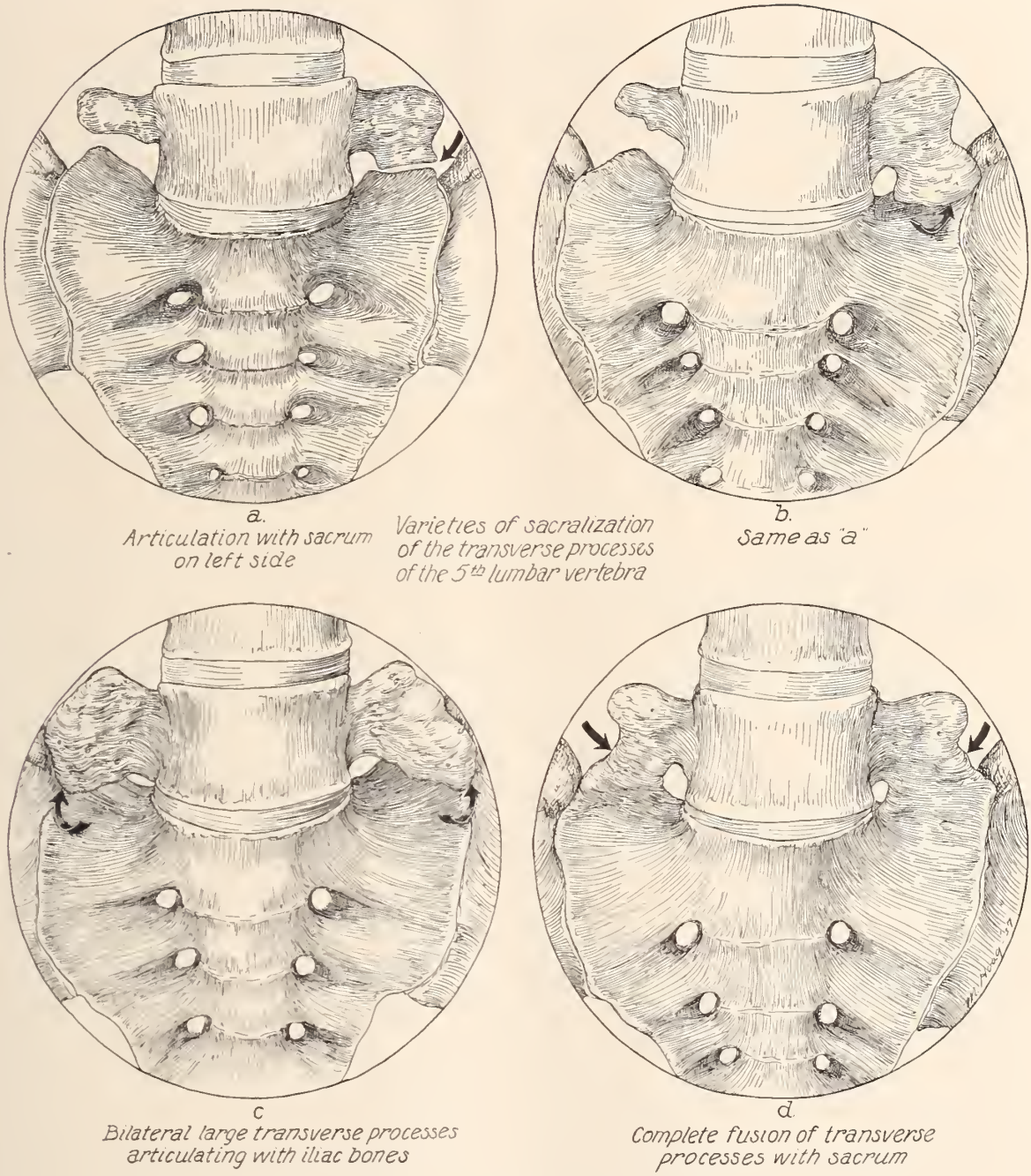


Fig. 4.—Types of lumbosacral transitional vertebrae.

third decade. Furthermore, during routine examination, the condition is found in many patients who have no symptoms. Opposing this viewpoint stand the arguments that in early life the process is mostly cartilaginous and, therefore, not likely to produce symptoms till ossified; that even though patients are found who are symptom-free, this anomaly may, nevertheless, indicate a point of weakened resistance; and that, from a mechanical standpoint, trouble might be expected. Such trouble would be caused by an enlarged process which, though not actually in contact with the sacrum, might impinge on it during lateral bending and thus nip the intervening soft tissues and periosteum.

A large unilateral process may serve as a fulcrum when motion is in its direction, so that abnormal stretching of the ligaments on the opposite side is caused. The arthritic changes (Mitchell)[3] which may be present around these anomalous joints not only produce pain themselves, but may be sufficient to involve the adjacent nerves by encroachment on the intravertebral foramina. In fact, Wagner[4] shows a number of cases in which referred pain in the lower extremities has been limited to the distribution of the lower lumbar and upper sacral nerves. He believes the cause to be directly traceable to various types of transitional lumbar vertebrae.

It seems likely that the question of whether these anomalies produce symptoms will continue to be disputed, and that the outlook of different authors will vary according to whether they have an industrial practice in which many cases of low-back

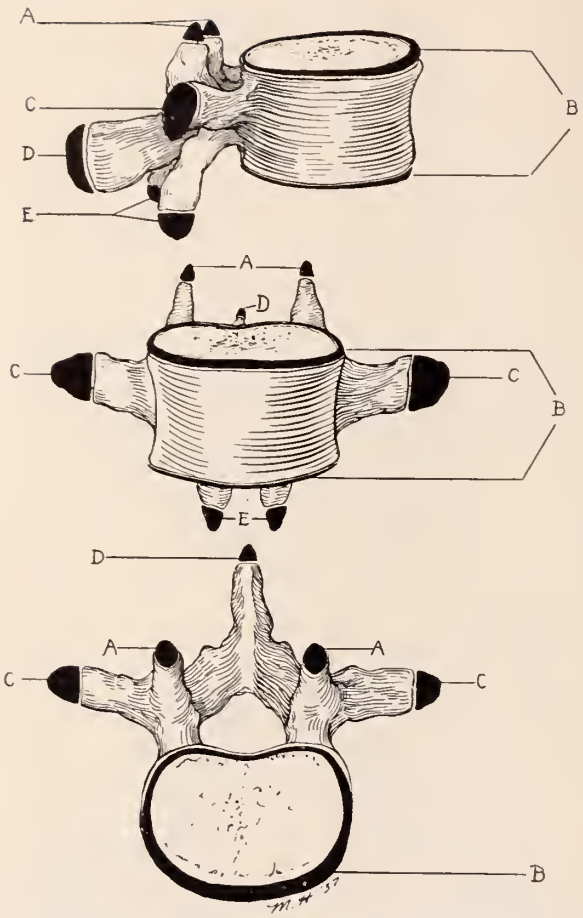


Fig. 5.—Possible locations of persistent epiphyses. (A) Superior articular processes. (B) Rim-like secondary epiphyses around vertebral body. (C) Transverse processes. (D) Spinous process. (E) Inferior articular processes.

pain are radiographed, or whether they note these anomalies incidentally in films made for examination of the urinary tract or some similar purpose.

Far more conclusive than much of the speculation which has appeared on the subject is the report of Bohart,[5] who made radiographic examinations of the entire spines of one thousand switchmen on the Belt Railway Company of Chicago. These switchmen have particularly hazardous work, which practically requires that they be trained athletes. In the year before routine examinations of the entire spine were instituted, there had been forty-seven back injuries. After the examinations were started, all persons with arthritic lipping or spur formation were not employed, but those with anatomical variations and anomalies were accepted, if the man was otherwise physically strong.

The results were astonishing. In the two and one-half years following the examinations there were only two litigations in cases of low-back pain in contrast to the forty-seven in a single year before such examinations were started. Since no anomalies of the spine had been weeded out, Bohart concludes that anomalies play no part in making men more susceptible to injury. In fact, his patients with cervical ribs were injured, but there were no complaints relative to their cervical ribs. Likewise, some of the men with spina bifida occulta

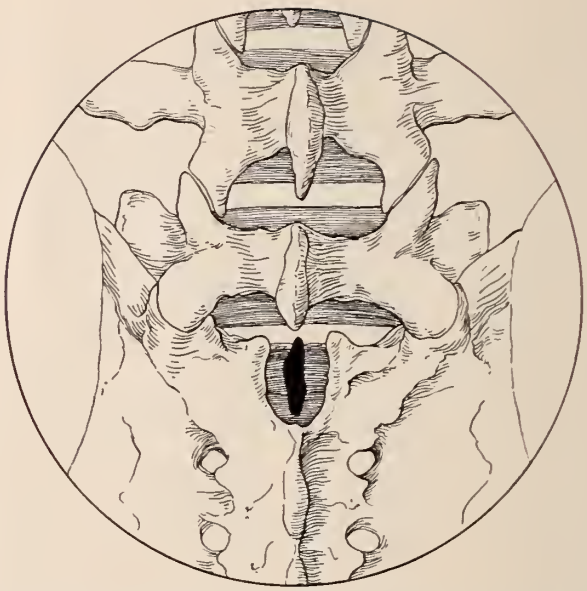


Fig. 6.—Persistent epiphysis of the spinous process of the first sacral segment. Fusion has not resulted because of a concomitant spina bifida.

and sacralized vertebrae had serious falls from the tops of freight cars moving at high speeds, but they had no complaints relative to their anomalies.

Our experience is in close accord with these findings. While we find marked osteo-arthrosis or obesity frequently associated with low-back pain, the incidence of lumbosacral transitional vertebrae is not appreciably higher in such cases than in films made for other purposes.

PERSISTENT VERTEBRAL PROCESS EPIPHYSES

While an absence or irregularity of primary centers of ossification will produce the defects just discussed, the secondary centers, or epiphyses, which frequently appear during the growth period opposite the tips of any of the vertebral processes, may fail to fuse at the usual time. The possible locations of these "persistent" epiphyses appear in Fig. 5. The ossicle which is thus formed is more than a pathological curiosity, for it may be wrongly interpreted as fracture.

Secondary epiphyses occur with regularity opposite the uppermost thoracic vertebra and, according to Gråberger,[6] a "persistent epiphysis" at this point is found in 0.7 per cent of all individuals. No diagnostic difficulties are experienced when this anomaly is bilateral, because the two sides are symmetrical. Unfortunately, from a diagnostic standpoint, unilaterality is the rule.

The spinous processes may also have small persistent ossicles opposite their tips in later life. The appearance of these epiphyses is especially strange when the spinous process has not fused properly (Spina bifida occulta), as frequently occurs with the first sacral vertebra. Under these conditions a small ossicle, about the size of the tip of a spinous process, is seen lying in the fissure between the ununited spinous process, as in Fig. 6. This ossicle is completely free from any of the surrounding bones, and is united only by soft tissue to the portions of the spinous process with which it would

normally have fused completely. Persistent spinous process epiphyses are usually distinguishable from fracture by (1) their multiplicity, (2) their location at the tip of the process instead of at the mid-portion where the structure is weakest, and (3) by the points later to be described common to all of the process anomalies.

Similar unfused centers of ossification opposite the inferior articular processes of the lumbar vertebrae are not rare, while more seldom the superior articular processes show this phenomenon. In a previous communication,[7] the literature on this subject was reviewed, and emphasis laid on the necessity for differentiation from fracture. Unlike the transverse processes, however, isolated fractures occur in the articular processes only with rarity, and are not only disabling because of the amount of pain produced, but usually have a definite antecedent history of a sudden bending or rotating motion while the spine was locked in flexion or extension.

In general, the radiographic appearance of persistent epiphyses of the vertebral processes may be differentiated from fracture because:

1. The anomalies are often bilateral or multiple. Multiple fractures may occur, but lack regularity.
2. The margins of the persistent epiphyses have a sharp cortical outline, while a typical fracture line is serrated and small comminuted fragments may be present.
3. The epiphyses are often larger or show some irregularity of shape which would not be expected in a fracture fragment.
4. Fracture fragments are nearly always displaced by ligamentary or muscle pull, and do not appear in close apposition to their base with the bone cortices completely parallel, as is the case with the anomalies.

The rim-like secondary epiphyses occasionally fail to fuse, thus leaving a triangular piece of bone at the vertebral body margin.

They can be differentiated from fractures of the vertebral margins by (1) the separation between the epiphysis and body which is occupied by space-taking epiphyseal cartilage; (2) the lack of compression of the body; (3) the absence of "offset" of the fragment; and (4) the fact that the persistent epiphysis does not change position when the spine is flexed or extended, which is almost invariably the case with a fracture fragment not in contact with the vertebral body.

SUMMARY

An attempt has been made to correlate the anatomical, roentgen, and clinical findings in the more important developmental abnormalities of the spine in an effort to show how such abnormalities can be differentiated from fracture and from which a variety of symptoms may be expected.

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DISCUSSION

Paul E. McMaster, M.D. (1930 Wilshire Boulevard, Los Angeles).—The authors have discussed some important and practical points from a clinical and diagnostic standpoint. These are particularly pertinent in attempting to correlate the importance of anomalous lesions of the spine with certain symptoms. One of the features, as was pointed out, is the need to determine what effect or relationship, if any, such lesions might have to injuries, and especially those with an associated compensation factor. Quite frequently an examiner is called upon to estimate disability of spinal injuries in which cases roentgenograms reveal anomalies. Are these causative of the symptoms? Are they producing a prolongation of symptoms? The authors called attention to the fact that many of these lesions without symptoms are discovered, incidentally, to routine examinations. Thus, care should be exercised against indiscriminately attributing symptoms to an anomalous condition in the spine, unless other pathological conditions are ruled out first.

Congenitally fused vertebrae cause, as a rule, no significant symptoms. Hemivertebrae often give rise to scoliosis, which may be well compensated and without symptoms. Attempts have been made to remove these with variable success, due probably to technical difficulties. A spinal fusion would appear to be more feasible in the presence of symptoms.

Simple spina bifida occulta without herniation is not uncommonly encountered, and usually causes no symptoms.

Spondylolisthesis results from a congenital maldevelopment and frequently may produce low-back pain with an associated sciatic distribution often appearing after either a single severe or repeated minor injuries. Although an injury may be contributory in precepitating these symptoms, it is problematical as to how much importance an examiner is to place on the injury and how much on the congenital malformation, particularly in those cases with a compensation factor.

Transitional vertebrae are quite often the sites of anomalous development and, although a number of these may remain "quiescent," some, such as cervical ribs and others as abnormal transverse processes of fifth lumbar vertebrae fusing or articulating with sacrum or ilium, or both, are important in causing symptoms which at times are severe. Stereoscopic as well as oblique roentgenograms of the lumbosacral region are at times advisable, and may show an existent gap where, on routine anteroposterior views, a fusion or articulation of fifth lumbar transverse process to sacrum or ilium seemed to be present. Surgery usually offers relief in these cases.

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Harold E. Crowe, M.D. (2417 South Hope Street, Los Angeles).—It is very frequent that areas of abnormal mobility, especially in the low-back region, will not only produce symptoms but produce changes in the bone which can be visualized by x-ray; and when these areas are seen at surgery during spinal fusion operations the abnormal motion and the sclerosing changes in the bone may be grossly visible. However, the problem of low-back conditions, like all other medical problems, is prone to be subject to waves of enthusiasm, and at the present time the tendency is to feel that the actual seat of pain in low-back conditions is in the soft tissue structures, especially ligaments and fascia associated with the skeletal low back. Since undue tension on ligamentous structures over a period of time will produce symptoms, the study of the statics of

the low-back becomes just as important as the study of the bony structure on the discovery of bone disease.

X-rays taken in the standing position, while they are often not adequate to give actual bone detail, will very frequently explain the symptoms in these cases and lead to remedial measures which produce complete relief, simply through the change of the habitual stance of the patient. Where such postural faults are found associated with skeletal anomalies, it is undoubtedly true that the symptoms are aggravated by the skeletal weakness and the two findings may work together in producing the chronic pain.

As the study of the problem of pain of this sort grows more extensive, it becomes more and more obvious that there must be many explanations of backache and that no examination is complete which overlooks the numerous possible factors in any individual case, among which the points brought out by Doctors Bailey and Carter are of extreme importance.

THE LURE OF MEDICAL HISTORY†

PURKINJE'S PIONEER SELF-EXPERIMENTS IN PSYCHOPHARMACOLOGY*

By P. J. Hanzlik, M.D.
San Francisco

PART I

INTRODUCTION

IF we agree with George Eliot that "Genius is an immense capacity for taking pains," then this definition exempts that immortal of biology and medicine whose work I propose to discuss tonight. Impatient with infinitesimal detail, intolerant of triviality, extraordinarily original, masterful interpreter of natural phenomena, unusually apt in spotting the right thing at the right time, pacemaker of experimental physiology, medicine and psychology—that was Johann Evangelista Purkinje, the scientist. Endowed with a vivid imagination, a keen philosophical mind, a prophetic vision, a tolerant spirit, a sympathetic nature, and a clear understanding of human affairs, and a man with the highest ideals who led a full and beautiful life—that was Purkinje, the man, the humanitarian, and the statesman. He was indeed unusually talented and remarkably ingenious, especially in the biological sciences.

Yet, in a recent paper (1933) on the history of physiology and physiologists, by an American physiologist,[1] Purkinje's name is barely mentioned. Purkinje is only alluded to as a contemporary with Liebig and Bunsen, as being the first to establish laboratories in anything like the modern sense. Purkinje is credited with some influence on Ludwig, who is suspected of having been affected, in planning his laboratory, by the example of Purkinje and these two noted chemists. So it is with many other physiologists—that Purkinje's name seems all but forgotten. His multitudinous activities have all but faded from the memories of scientists. Nevertheless. Purkinje was the pioneer of all modern physiology as it has developed to the present time. He was the forerunner of all great physiologists of modern times. For he antedated practically all the great experimental physiologists. To mention only a few: "Johannes Müller was just developing; Claude Bernard was six years old; Brown-Séquard and Carl Ludwig were infants; Brücke was uttering his first cry; Helmholtz and Huxley were yet unborn, when Purkinje published his thesis in 1819" (Robinson).[2] He preceded, by seventy years, Francis Galton in making use of finger-print identification; in fact, first proposed the idea scientifically. He established at Breslau, in 1839, the first laboratory of experimental physiology in Germany, and only Magendie had made previously a similar effort, in France. He originated the first course in experimental physiology in Breslau in 1824. He created, in 1850, at the age of sixty-three, another institute of physiology in Prague. Probably his best-known pupils were Valentin, Pappenheim, Czermak, Sachs, Gregr, and Fritsch. He found physiology a speculative subject and left it an experimental science.



Fig. 1.—Johann Evangelista Purkinje (1787-1869). Oil painting by Maixner.

If some physiologists are to be called the masters of physiology, it would seem appropriate to speak of Purkinje as a supermaster (Figure 1). Therefore, one reason why I propose to discuss Purkinje is that he is an undeservedly forgotten experimental physiologist. Another reason is that he is even more obscure as a pharmacologist, although he made some remarkably original experiments on himself which have never been discussed. Before considering these self-experiments, I may summarize his qualifications as an experimental biologist by citing his discoveries and achievements in biology and medicine, even at the risk of repeating some things which may be known.

†A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

*Sigma Xi address, University of Nebraska, Lincoln, Nebraska, February 16, 1938.

From the Department of Pharmacology, Stanford University School of Medicine, San Francisco.

References will appear in Part II.

PURKINJE'S BIOLOGICAL AND MEDICAL DISCOVERIES

The following is a rather categorical summary of outstanding items of Purkinje's discoveries in biology and medicine, which have been collected from various sources, but especially from a list of the original works of Purkinje in a report by Eiselt in 1850[3]:

Protoplasm: he coined the word.

Animal cell: he described it two years before Schwann, who is credited with the discovery.

Cambium: he coined the word.

Nucleus of animal egg (germinal vesicle in birds): he coined the word "nucleus."

Axone cylinder: he coined the words.

Nerve plexuses.

Corpora amylacea of brain tissue: Virchow credits him with these names.

Ganglion cells of the brain: these were named after him—"cells of Purkinje."

Muscle fibers in the heart: these were named "Purkinje fibers," after him.

Gastric glands and nature of gastric digestion.

Sweat glands and their ducts in human skin.

Stripes of volar and plantar skin surfaces (the scientific basis of dactyloscopy).

Idea of the threshold of stimulation.

Cilia in oviducts, gills, inner brain cavities, and respiratory passages, and their functional independence of the central nervous system. This work was done with Valentin, a brilliant young medical student, who later became a professor of physiology in Switzerland.

Fertilization of the ovum by the spermatozoön, that is, the mechanism of the sperm's migration toward the ovum with the aid of ciliary motion. This discovery was made also with Valentin.

Physiological optics: Purkinje's figures (Fig. 2), Purkinje's images, Purkinje's phenomenon; methods of measuring the curvature of the lens and cornea and of lighting the retina. This work attracted Goethe's attention. Purkinje's work on subjective phenomena of vision was repeated and confirmed, and much that was new found in it by E. Thomsen of Copenhagen in 1917.[13]

The microtome and microphotography were first used by him. He introduced certain histological technique, and a "phorolyt," useful in physiological demonstrations, a predecessor of the kymograph.

Physiology of speech.

Psychological phenomena: physiology of dreams, topology of senses, acoustics, "Tartini's tone," auscultation phenomena.

The following discoveries were made jointly with students working under his guidance, often published briefly under a student's name, but sometimes jointly with Purkinje:

Fertilization methods in plants.

Formation of skin of cucumber plants.

Symbiotic infusoria living in the stomach of ruminants.

Descriptions of rhizopods and nautilus.

Embryology of tadpoles.

Development of human teeth (two hard dental substances).

Photometry.

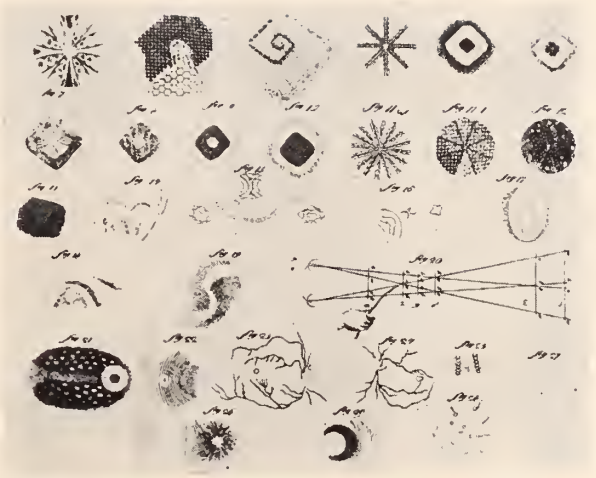


Fig. 2.—Figures in field of indirect vision: Results of pressure on eyeball and galvanic stimulation (Purkinje, 1825).

That the deaf and dumb can hear through the bones of the skull.

Production of vertigo, which paved the way for an understanding of nystagmus.

Artificial and natural digestion; influence of bile.

Original descriptions of bone, cartilage, blood vessels, and fibrillar structure of uterus.

Purkinje is also credited with being the founder of modern histology and microscopic anatomy. "The Breslau Institute was the cradle of histology" (Schrötter).

I submit that a man who could do all this in a single lifetime, making so many outstanding and original discoveries by objective experimental methods, was more than an ordinary mortal. John Stuart Mill's definition of genius would seem to be applicable to Purkinje: " . . . in its true sense, originality in thought and action." . . . But how his genius was developed is another matter. Carlyle stopped all guessing about this human attribute when he said, "Genius is ever a secret to itself."

Accordingly, Purkinje would be expected to have his feet on the ground as a psychopharmacologist. By that I mean that he would use carefully controlled and reproducible methods in testing subjective phenomena. And indeed, Purkinje was a monastic philosopher who turned from speculation to objective investigation and used himself as an experimental subject. As a teacher, he was opposed to lecturing, as against experimenting and demonstrating. That is why he developed physiology as an experimental science, a method scarcely appreciated when he appeared on the scene at Breslau. We may now turn conveniently to his self-experiments in psychopharmacology, where he observed both subjective and objective phenomena.

SELF-EXPERIMENTS IN PHARMACOLOGY

It is interesting to consider why Purkinje undertook experimental work in pharmacology. In a sense, he was a therapeutic nihilist, as he was rather skeptical of the therapeutic claims and practices of his time. He deprecated the idea that pharmacology should be only a handmaid of clinical therapeutics. He advocated physiological experimentation with therapeutic measures and remedies, so as to estab-

lish a rational basis for indications and uses of drugs, as against the guesswork of empiricism. Although he regarded pharmacology as a branch of physiology, he prophesied that some day pharmacology would achieve an independent status. Toward this he himself contributed materially by actually undertaking experiments with drugs and interpreting the results physiologically. In this he antedated, by some thirty years, Buchheim (1856), the generally accepted founder of modern experimental pharmacology. Purkinje's studies of belladonna and digitalis on the vision were published in 1823.[4] and his work on physiological pharmacology, in 1829. A part of his work in physiology and pharmacology was almost contemporary with Magendie's experimental work on the absorption of food and drugs (1816), and description of actions and uses of drugs in his *Formulary* (1821). However, Purkinje, in turn, was antedated some twenty years by Sertuerner (1803 and 1817), who made scientifically controlled animal- and self-experiments with opium and morphin, the first alkaloid to be isolated (by him) and which gave the correct explanation of the narcotic action of opium. While, of course, all this early pharmacologic experimentation was rather limited, it was done systematically and with some of the most important drugs of the therapeutic armamentarium. Pharmacologists of today may only regret that modern experimental pharmacology, so auspiciously begun by these great masters some 130 years or so ago, has not always kept pace with developments in biological science. But this has not been always the fault of pharmacologists. There are institutions today in this opulent country of ours where pharmacology is not encouraged to keep pace or develop with its sister sciences. Thus, Purkinje's fondest hopes of an independent status for this subject have not yet been realized in some of our otherwise best university medical schools. Perhaps these best schools hope for the adoption of Purkinje's method in pharmacology which, as already indicated, was self-experimentation. However, this is a kind of clinical pharmacology, which lacks a universal appeal for obvious reasons. Purkinje's reason for choosing the method of human experimentation is well appreciated by present-day pharmacologists, but the practicability of it for general adoption in teaching is seriously questioned. Even in research the method has great limitations. True, Purkinje regretted that experiments with drugs were made commonly on animals. He said that this was done somewhat according to the old dictum, *"Fiat experimentum in corpore vili,"* make the experiment on the lowly, the vile, or the criminal. However, this reveals only the objective or vegetative part of a drug's action. The surest way was by cautious experimentation on oneself. Thus, an experiment carried out *"in copore nobili"*—on a noble body—he thought, is of the greatest value, especially as to subjective reactions. Of course, Purkinje was always interested in subjective phenomena. Indeed, it has been said of him that he was always experimenting on himself, being especially interested in an idiosyncrasy of his own—that is, nausea—which sometimes lasted for days. For instance, he reported once that a mere look at a gray color, like that of emetin, caused him a sustained nausea (Eiselt, 1859). He had made extensive experiments on himself with emetin and ipecac, in which he determined the effective doses of these drugs, and the time of onset, symptoms, and seat of nausea. It has been said that medical scientists investigate their own diseases. Was nausea Purkinje's disease, hobby, or his nemesis? We shall probably never know, but it could hardly have been a recreation. However, a nauseant or emetic action did not always occur with the drugs which he examined on himself. One of these was belladonna, which I may discuss first.

EXPERIMENTS WITH BELLADONNA ON THE EYE

English writers had previously compared the actions of belladonna on the eye to presbyopia. However, Purkinje was not convinced of this analogy, since he believed the effects did not coincide. Therefore, he undertook experiments on himself, using an aqueous extract of belladonna instilled into the eye. In two hours the pupil dilated, and then, using a special viewing tube, he observed in the field of vision peculiar stellate figures, which appeared as complete stars only by divergence of rays, while in presbyopia the stars appear only by convergence. His explanation of the drug's effect on vision was based on a peculiar distribution of the light. The seat of the effects producing these stellate figures was in the lens, which, under belladonna, was more completely exposed, due to retraction (relaxation) of the iris, and flatter, due to the cycloplegia, resulting from the paralytic actions of the drug. The mydriasis resulted in considerable blinding and some pain due to too much light. The striking chromatic figures, which he also observed, were explained on the same basis, *i. e.,* the lens acted as a prism and dispersed the light. The eye under belladonna was not more sensitive to light than the normal eye; but more light entered the medicated eye, due to the mydriasis. The resultant figures and images varied with the conditions of testing the vision. The medicated eye did not see any better in the dark. Purkinje made some self-experiments with internal administration of belladonna, and recorded systemic symptoms from the drug. These will be mentioned later. His self-experiments with drugs on vision were limited, but the most interesting were those with digitalis.

DISTURBANCES OF THE VISION BY DIGITALIS

No such observations or experiments with digitalis had been made before Purkinje. His experiments are not mentioned in any of the special monographs on this drug or in textbooks on pharmacology, therapeutics, and medicine. However, exactly one hundred years after Purkinje's description of the effects of digitalis on vision, three physicians in Boston—Doctors Sprague, White, and Kellogg, observed independently and described in 1925,[5] the same phenomena in digitalized patients. A short time before Doctors Sprague and White wrote me about their observations, I had trans-

lated Purkinje's original description of his self-experiments with digitalis and published it the same year (1925).[6] As Purkinje's description is too long for presentation here, I have selected a few interesting and important passages, which will suffice to indicate the exactness of his observations and the scientific interest in his own reactions to the drug, as well as the explanations of the peculiar flickering he experienced. He states:

"My personal experience with various specific and subjective disturbances of the vision, however small, have led me to suspect that behind the common, indefinite expressions of glaring, flickering, sparkling, etc., something more definite and somewhat more specific could be demonstrated by closer observation. Likewise, the statements of patients about flickering before their eyes after taking *Digitalis purpurea* were never satisfactory to me, and I could not resist the temptation to look for a more exact explanation of the phenomenon. Therefore, I took an aqueous extract of digitalis (three grains daily) during four days and experienced practically no general effects from this small dose. However, on the second day, I noticed a very soft flicker before my left eye, but could discover no regular conformation in the distribution of the lights and shadows. It appeared as if the lens trembled with each look, whereby the altered refraction caused a rapid and fleeting distribution of light and shaded spots on objects. The luster also led me to believe that such a mechanical change in the images might determine the phenomenon. On the third day the flickering was somewhat more pronounced, and it was not only present during winking, but also each time I looked from a light (the window space) to a dark place in the field of vision. This led me to suspect that it was not the mechanical motion but rather the sudden transition from light to dark that was one of the most important conditions of that phenomenon. I then turned the eye toward the bright sky and, without closing and moving it, covered it quickly with my hand and the flickering appeared as markedly as before.

"Frequently the same thing occurred after running a race with someone, and I do not doubt that also others have observed the same thing under similar circumstances. This indicates that the flickering is sympathetic, and may have its idiopathic seat in the pulmonary and cardiac branches of the vagus nerve. In order to convince myself of this, and perhaps to obtain a still clearer demonstration of the flickering, I made a more pretentious experiment some weeks later."

"At about 8 o'clock in the morning, and one hour after a full breakfast, I took a concentrated decoction of the leaves of *Digitalis purpurea* (two drams to half a quart, boiled for half an hour). Toward 10 o'clock I became nauseated, and the pulse, whose ordinary rate was between 60 and 70, had slowed down to 54, missing many times, and I felt a sensation of oppression with each beat, as if the heart had been seized by the hand; otherwise I felt invigorated."

"At noon I ate the ordinary amount without appetite, and expected to correct the neausea with this. During the afternoon the condition remained the same. At about half-past eight in the evening I had an attack of the so-called 'heart worm' (cardiac distress) with intermittent pulse, congestion in the head, especially in the back and toward the left, and a desire to vomit. I stimulated vomiting several times by mechanical irritation of the back of the tongue and the pharynx, this resulting in the expulsion of a large quantity of saliva with mucus and acid food, but not a trace of the decoction of digitalis. During the night I awoke three times from a peaceful, dreamless sleep, being aroused by violent sneezing, which arose from the esophagus as a mild sensation of nausea, and relieved itself in the nervousness during sneezing. Toward 5 o'clock in the morning of the following day there was spontaneous vomiting, which removed no food residue and only a quantity of the unchanged decoction. Now for the first time flickering developed in the left eye: nausea, cardiac oppression, a sensation of weakness and muscular tremor lasting the entire day. I was not disposed to leave the bed, my appetite was poor, and I took only some clear soup off and on, in order to suppress the unnatural vomiting which the digitalis still produced.

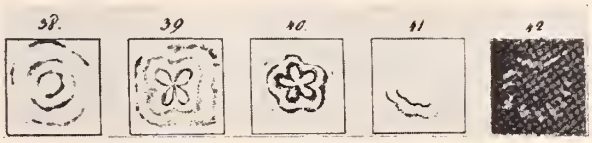


Fig. 3.—Visual disturbances after digitalis (Purkinje, 1825).

"During this entire time the brain was not affected in the least (as, for instance, after opium, camphor, or datura).

"A habitual cough, which I had for several weeks, disappeared entirely during this time, and later did not return.

"I come now to a more detailed consideration of the beautiful forms of light that were observed. [Illustrations in Figure 3, this paper by author.] Figure 39 represents them as they appeared on the second day, and Figure 40 shows an exaggerated form of the same thing on the third day. Toward the last, when the flickering had subsided and practically disappeared, a fragment still showed up off and on, and as indicated in Figure 41, but it was inconstant as to location and behavior. Without further description and allusion to the figures, I shall call these forms flicker roses (rosettes). The light itself is a subjective one, analogous to the sensation of blinding which remains after the effect of a strong external light in the eye."

"One can best illustrate the same thing to himself by making similar streaks with an oily solution of phosphorus on a surface in the darkness, and then, as they begin to disappear, if air is blown on them they show a similar brilliance, a waning and kindling of the light, with disappearance and reappearance of it as is observed subjectively. The two types of light images are not constant throughout in their contours, which indicates an inner relation to the structure of the retina, as can be the case with octagonal radial rays and with rectangular spiral forms (described by the author in Book I)."

"The foregoing suggestion, that flickering after the use of digitalis is more sympathetic than idiopathic, depends on affections of (changes in) the vagus nerve, as confirmed by the latter experiment, sneezing, and the action on the heart and lungs, indicate a marked stimulation of this nerve."

"I do not doubt that a similar flickering can appear in other affections, for instance, after the administration of other nauseants."

Sacramento and Webster Streets.

(To be continued)

STATE MEDICAL ASSOCIATION AND OTHER REMINISCENCES

By Douglass W. Montgomery, M.D.
San Francisco

PART II*

MEDICAL SCHOOL OF THE UNIVERSITY OF CALIFORNIA

I HAVE seen the University of California grow from a crossroads academy to its present proportions, and I have seen its Medical School develop from a lecture hall, just existing and momentarily on the point of being snuffed out, to what it is today.

In 1886 the Medical School was in a building, the gift of Dr. H. H. Toland, situated near the northern extremity of Stockton Street. The active city had grown away from it. It was in a backwater in which it was impossible to develop a clinic, while its rival, the Cooper Medical School, was in the line of the city's development, with excellently appointed and well-manned clinics. Even the

* Part I appeared in June issue, on page 446.

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County Hospital, in the neighborhood of which our building had been constructed, had been removed to a site as distant as possible. This bad turn was said to be the work of a member of our own faculty, Dr. R. Beverly Cole, of whom more hereafter. We managed to exist through our association with the Dental School, which bore part of the expense of the dissecting room. But the presence of our comrade institution narrowed our quarters to the extent of nearly pushing us out onto the street. Our immediate neighbor to the south was the Inebriate Asylum, superintended by a lively, hospitable man, named Doctor Jewell. I often wonder we did not all, in our extremity, retire there.

OBSTETRICAL TEACHING

The human being, however, when cornered, has many resources, and it is often true that the real advance of a corporation is made in hard distressful times. It is then that measures are taken that bear fruit when the fruitful years come. We were so poor in resources that we had no obstetrical facilities, and our students often graduated without ever having seen a woman in labor. But they had an opportunity to see Beverly Cole. He was an excellent actor, and before all the students, with the aid of a manikin, would go through all the motions of labor exactly and seriously. It may sound ludicrous that a man—and an elderly man at that—and a professor in a school, would give such a representation, and in a less consummate actor it would have broken down into a farce. The demonstration was carried out too seriously, however, to allow of levity.

BEVERLY COLE

Cole was by far the most picturesque figure and, in many respects, the ablest of our faculty. I knew him only as an impecunious, elderly man, at the end of his career, but even then he was a remarkable individual. His practice had gradually receded, partly through age and partly through that extraordinary revolution in surgery brought about by antiseptic methods and the discoveries of Louis Pasteur. Elderly as he was, however, he carried the convention of the American Medical Association in a meeting in Baltimore in 1895, and was elected president, one of three from the Pacific Coast who have held that high honor, the others being Thomas M. Logan of Sacramento, elected in 1873, and President Ray L. Wilbur of Stanford, elected in 1922.

The night before Cole went East to this meeting, several members of the San Francisco County Medical Society adjourned to the University Club, then on Sutter Street. On parting for the night, Cole was heard to say to Doctor MacMonagle: "Now, Mac, you will do all you can for me?" To which MacMonagle answered, "Of course." On Cole's return he telegraphed to the senior class, who met him on the Oakland Mole. Cole made a short speech, in which he said that the honor of being made president of the American Medical Association was all the greater as being unsolicited and unexpected. Those who knew Cole's astute energetic and persuasive electioneering abilities heard this "unsolicited and unexpected" with doubting ears.

As a young man, Cole had the reputation of being strikingly handsome. When I knew him, his raven-black hair and clear complexion had blanched, but his features were still beautiful, and age could not quench his vivacity.

Cole was one of the most sentimental men I have ever known. He longed for sympathy and would get your attention if he had to slap your face to secure it. This longing for attention was accentuated where women were concerned. If a woman entered the room, Cole's mind, no matter what he was engaged in, was instantly diverted to obtaining her attention. This peculiarity sometimes led to embarrassing situations, as under this influence he was not a responsible being, especially not responsible for his tongue. Under this influence he would sometimes act outrageously and, curiously enough, his victims seemed subsequently to be as anxious to forgive as he was to secure forgiveness. There was one exception to this rule of mutual forgiveness for past sins.

Levi C. Lane was one of the finest, ablest men we have ever had in San Francisco. He was a steadfast friend, but a Juno to his enemies. Cole and Lane were at one time associated, and Lane, it is said, construed one of Cole's erratic actions as a defection, which it probably was. As for Cole, one of the delights of his declining years was to estimate that the threshold of the front door of the new Medical Building, which he regarded as his own front door, was higher, as he could see it across the city, than the roof of Lane's school.

Cole had some right to think that the beforementioned door was his own. We shall presently speak of the active part he took to secure the appropriation from the legislature for the erection of the buildings, and of the deft way he steered the enterprise along its early precarious way. Besides the view he enjoyed of Lane's school, he could look into Golden Gate Park. In the infancy of the city, while a civic official, he had had the imaginative ability to drive out with a horse and buggy into the barren sand hills to secure that tract, which was afterward so beautified by W. W. Stow and John MacLaren.

W. E. TAYLOR

Another picturesque member of the faculty was one of our surgeons, W. E. Taylor. He had previously served in the United States Navy, and this training, together with a natural carelessness in monetary matters, eminently unfitted him for civil life. He was a Southerner, and chewed tobacco copiously; and while lecturing would stride back and forth before the students and, having reached the extreme distance between himself and a spittoon, would turn and project a stream of saliva, which always hit the mark. The students, noting his success, would roar with applause.

MOVING DAY FOR THE UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL

There came a day in the old quarters on Stockton Street when the dental school moved to a building

on Market Street, and with it even went one of our professors. The space, which had previously been narrow, now looked as empty as a barn. We had room for clinics, but we had few patients. This was partly due to the number of clinical departments being too small to get a large enough amount of material for each, but principally to our being in a neglected corner of the city. Dr. John M. Williamson, who was always enterprising and a good executive, extricated us from these doldrums. We moved into the second story of a frame building on the corner of Twenty-second Street and Potrero Avenue, where we took advantage of the overflow of patients from the County Hospital. We instantly secured excellent material for demonstration and study, and achieved a saving of time for the students, as much of their work lay across the street. Soon we found that these quarters were too narrow, and Williamson again made a move, this time down to a building of the Sharon estate on New Montgomery Street near Mission. We were here in the midst of a densely inhabited district, and not too far removed either from the school building or from the hospital. We had a good room for a laboratory, a large enough lecture room, and several clinic rooms. It is true that the building was old. It had been the quarters of the National Armory, later famous for its prizefights, and when we entered it the building itself could have been compared to a pugilist whose day had passed but whose frame was still sound. We had, however, plenty of patients, good light, and high ceilings.

We had an excellent staff of young men, among whom were J. M. Williamson, Herbert Moffitt, Leo Newmark, H. A. L. Ryfkogel, H. B. A. Kugeler, G. E. Caglieri, George W. Merritt, Washington Dodge, T. B. Leland, W. G. Hay, and George D. Culver.

WILLIAM WATT KERR

I think we all were imbued with the same just spirit that animated William Watt Kerr, who was the clinical professor of medicine in the hospital. He always said that although we received no remuneration for our services, the students had paid their often hard-won money for instruction, and that they should receive value for it. It must also be said that through the influence of William Osler and his associates in Johns Hopkins University, and through the then recent discoveries in medicine, a change was taking place in medical teaching throughout the entire United States and, in fact, throughout the world.

OTHER FACULTY MEMBERS

Ryfkogel was enthusiastic, young, and able, and gave an excellent clinical laboratory course. But Robert A. McLean, our dean of Scotch descent, used to complain of his bills for material. Enthusiasm, however, although one of the intangibles, is frequently so valuable as not to admit of repression. So thought Williamson and I, who were on the Clinic Committee.

George W. Merritt was associated with Dr. George H. Powers in the eye, ear, nose, and throat work. He was one of the best teachers on the staff, and seemed to have a natural aptitude for keeping the students interested, and for giving them practical instruction.

Kugeler was able and industrious, and he and Newmark used to scour the city for brain tumors, and, curiously enough, died with one himself. Kugeler was a bit boastful. Boastfulness in a lazy man is repugnant, but in a man who does his work it may even serve as an additional touch of human nature.

Washington Dodge, who afterward left medicine for politics and became assessor for San Francisco, was an able man and a good teacher. He had a large table covered with glass, and under this glass the formulae of his favorite prescriptions. It gave the students a good opportunity to study the formulation of prescriptions, and as he was an excellent pharmacist they got a good course in this important branch.

Leo Newmark, then as now, was the most learned man of us, and the most persistent mimicker of the peculiarities of his friends. He had also an uncontrollable desire to favor the advancement of any lame-duck he might know.

W. G. Hay, my associate, had a nimble mentality, and a lovable nature. It was from a patient in this clinic that Hay and I secured the material to demonstrate the presence of sebaceous glands in the mouth.

George D. Culver and I were associated for over twenty-five years, when untimely death removed him from one of the pleasantest associations ever granted to me.

EARLY STEPS TOWARD PRESENT MEDICAL CENTER

In the course of time it was determined to apply to the legislature for a grant for buildings to house the medical, dental, pharmaceutical, and law departments of the University. In presenting this petition I got my first experience in lobbying. Cole was in Sacramento at the same time and on the same errand, and it was easy to see how able and well-fitted he was for his task. As for myself, my contribution to the success of the measure was probably small, but to my surprise I found the legislators earnest, courteous men, evidently anxious to weigh the merits of any proposition laid before them and not at all engaged, as I had anticipated, in frivolously scattering the people's money. I received then a lesson in representative government I have never forgotten. I found that, with all the apparent scandal and inefficiency incident to this form of governing, the public business is, as a rule, transacted well and that the prosperity of California, and also of the United States, is no accident. One day, however, I tried to do politics. I became acquainted with a man in the Golden Eagle Hotel bar, who I thought was a member of the legislature. After spending time, and something else, on him I learned he was an undertaker, with his place of business on Mission Street, San Francisco, and that he also was on a lobbying expedition. On finding that I was a doctor, practicing in his city, he said confidentially: "Anything you throw

in my way I'll make all right with you." A vision of throwing bodily through the air the remains of a former patient so that it might alight, like a well-directed quoit, on a certain spot on Mission Street arose before my eyes. I tried no more politics at that session, and confined myself to simple exposition.

After getting the appropriation through both branches of the legislature, the bill had to be signed by Governor Budd. The outcome was doubtful. At a large dinner at the Palace Hotel, given, as I remember, by the faculties interested, Cole managed to jockey Governor Budd into a public assent. The hurdles we had to jump, however, seemed to be infinite. The bill provided for buildings, but not for ground. We had two offers for sites—one secured from John Center, of a lot on Potrero Avenue, not far from the hospital, and favored by Dr. W. F. McNutt; the other, the present site, was offered by Adolf Sutro, and favored by Cole. I was distinctly on McNutt's side, both on account of the clinic that I always had on my mind, and on account of the proximity to the hospital. I felt that the Sutro site was too far removed, both from the city population and from the hospital. Cole thought little of the laboratory, clinical or bedside teaching, as he had been trained and had achieved his successes under the lecturing system. I soon saw, however, that the Sutro site was so superior, both as granting sufficient space for all the faculties and on account of its magnificent situation, that contention had to cease.

A word about the donor. Adolf Sutro was a striking figure wherever he might be. He had bushy white hair, white whiskers, and a strong handsome profile. He had a vigorous body and an active step. He wore a broad-brimmed, white, soft felt, wide-awake hat. He told me that once in Paris a cabby, on catching sight of him, called to a comrade: "Voilá c'est Buffala Bill!" The comrade answered: "Non, ce n'est pas Buffala Bill, c'est le père de Buffala Bill." He certainly looked as if he might have been the father of Buffalo Bill. Adolf Sutro had ability and imagination, and could foresee what San Francisco was to become and he staked his large fortune on the event. I believe that at one time he owned one-sixteenth of the total area of the county. He had an eye for situations, and he located his residence at Sutro Heights. I have seen Miramar, the castle of Maximilian, the one-time emperor of Mexico and, charming as it is, it does not compare with Sutro Heights, with its view of the Golden Gate, the Pacific Ocean, and the Beach. He chose another site, an elevated shelf sunk in a vast amphitheater, with a view north over the city and the Park and, far in the background, Tamalpais. This he intended for his library, an area of twenty-seven acres. What a dream it was! He agreed to let the Faculties have one-half of this amphitheater, reserving the other half for the library.

Having secured the appropriation and the site, we still had a few very considerable difficulties ahead of us, of which the furnishing of the building was not the smallest. This we did with our own money. Then the earthquake came, and with the change from a school building into a hospital, and the entrance of the school and the buildings into a new phase, the history of which others than I may sketch.

Again I wish to thank you, my colleagues, for the honor you have accorded me and for the opportunity afforded of recalling many pleasant recollections of the men and institutions I so long and so happily lived with.

450 Sutter Street.

CLINICAL NOTES AND CASE REPORTS

HUMAN MYIASIS

(HYPODERMA BOVIS DE G.)

By G. D. Billingsley, M.D.
Los Altos
AND
H. J. Templeton, M.D.
Oakland

THE drama of the sudden emergence of a small worm from a lump beneath a patient's skin, coupled with the rarity of such an occurrence, prompts us to report briefly the following case:

REPORT OF CASE

The patient, M. B., white, male, age five years, was seen on December 6 for treatment of a slight painless swelling of the left subauricular region which developed about twenty-four hours previously without apparent cause. History and examination of the patient did not reveal the cause, and the mother was advised to apply hot fomentations for a few days. Three days later she brought the patient in with another bluish-red, painless swelling of the lobe of the left ear. The original swelling of the subauricular region was subsiding. Hot fomentations were again used on the ear for a few days. The second swelling gradually subsided during a period of about three weeks. On December 23 the mother reported that a small papule, about one millimeter in diameter, had appeared at the site of the original subauricular swelling; upon squeezing it she had expressed a small worm, which she brought in. She said it did not appear alive at the time she pressed it out; and when examined it was somewhat dried, about 1 by 5 millimeters in size, and of a light brown color. After being placed in water for about an hour or so, and examined under the low power of the microscope, it appeared similar to a blowfly maggot. Transillumination of the left ear lobe during the time of the swelling and discoloration there revealed what seemed to be a foreign body of very slight density, and about the size and shape of the larva mentioned. Incision and search for it by dissection was without results. The supposed foreign body was probably a cartilaginous process, as later a very similar shadow was seen upon transillumination of the other ear lobe. The wound healed promptly, and to date there have been no other complaints.

At no time could we obtain a history of insect bites, recent wounds, illness or similar previous condition of the patient or other members of the family. The child had lived on a farm in the vicinity of Los Altos, California, all his life, except for a few trips to Vallejo, California. No maggot infestation of the stock on the farm where he lived had been noted; but we have been told by the local veterinarian that such infestation of cattle by the Hypoderma bovis is fairly common around Los Altos.

COMMENT

The worm, measuring about 10 by 2 millimeters, was sent to W. B. Herms of the University of California. He reported that it was a larva, the ox warble, Hypoderma Bovis De G. Herms had previously reported a case occurring in California. His patient was bitten by a fly about the end of July. Several days later soreness and swelling developed. The swelling migrated down the leg, up again, across the groin, then up the trunk to the scapular region where, in October, the worm finally emerged through the skin. Thus, the total period of its migration was approximately three months. There was no history or evidence of migration of the worm in our patient.

Los Altos.
3115 Webster Street, Oakland.

ANAL RESECTOSCOPE

By CHELSEA EATON, M.D.
Oakland

GOLF scores are due to technique, but surgical results are due to technique plus good exposure. In surgery, good technique can be employed only when exposure is adequate. However, the cost of adequate exposure in many instances is too great. The endeavor to visualize and deal with pathological conditions often leads to inordinate traction and retraction of tissues. An unjustifiable degree of trauma is the direct result of these manipulative processes.

That this type of trauma is the usual accompaniment of anorectal operations is well known. Here, where the sphincter is divulsed, where the mucous membrane is retracted and everted from the anus, where the vessels of the hemorrhoidal plexus are ruptured, and where blood is extravasated into the perianal tissues, a considerable degree of damage is produced.

As a result of this traumatism, there is a distortion of demarcative lines between normal and pathological tissues. Furthermore, valuable landmarks, which should serve as guides in the operation, are lost. If it is true that the results of anorectal operations are more unsatisfactory than those of any other ordinary procedure that the surgeon is called upon to perform, this factor of traumatic exposure may well be considered.



Fig. 3.—Ligating the blood supply above the dentate line, preparatory to excision. The patient is in the prone position, and the resectoscope is opened sufficiently to expose the hemorrhoid in the anterior right quadrant.

To provide adequate exposure and avoid unnecessary trauma was my purpose for devising the anal resectoscope—so called because it is a surgical instrument, in contrast to an anoscope, which is usually employed for examination.

The instrument is composed of two hemicylinders of tempered steel—the inner piece being encompassed by the outer—and an obturator. After inserting the instrument (as an ordinary anoscope) and withdrawing the obturator, an arc of the anal canal, varying from zero to 180 degrees, may be exposed by rotating the handles which are attached to the hemicylinders. The length of the instrument is 6 centimeters, and it has a uniform diameter of 3.5 centimeters.

Sufficient space is exposed by the resectoscope to permit ordinary anal surgery. Hemorrhoids, hematomas, fissures, and anal infections are effectively removed with facility. Furthermore, the accuracy of the surgical procedure is greatly enhanced because important anatomical landmarks, such as the intermuscular septum, the anorectal junction, and the dentate line, are not distorted.

The necessity for acquiring a slightly increased dexterity of surgical technique will be amply rewarded by the increased welfare of the patient.

Medical Center Building.

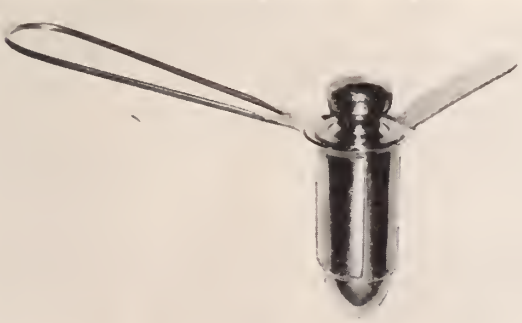


Fig. 1

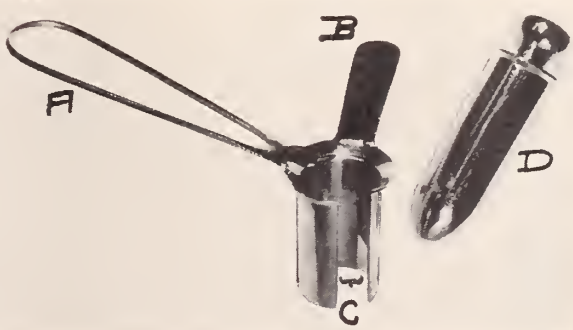


Fig. 2

Fig. 1.—Shows resectoscope with obturator inserted.
Fig. 2.—(A) Handle of outer hemicylinder. (B) Handle of inner hemicylinder. (C) Slot whose width is altered by rotating handles. (D) Obturator.

CORNEAL TRANSPLANTATION

By Max Fine, M.D.
San Francisco

THE recent outbreak of sensational newspaper accounts of corneal transplantation will result in a flood of inquiries to the profession from the blind and near-blind throughout the country. The recent statement in an Associated Press release that 250,000 blind may have their sight restored, has already brought forth a voluminous correspondence from the friends and relatives of unfortunates, blind from advanced glaucoma, optic atrophy, and other hopeless conditions. It is important, therefore, that every physician should be acquainted with the possibilities and limitations of the operation.

Corneal transplantation was first attempted a little more than one hundred years ago. The first description in the English language was written by S. L. Bigger in the Dublin *Journal of Medical Sciences* in 1837. In the absence of anesthetics, aseptic technique, and adequate instruments the early attempts were universally unsuccessful, and the transplantation of corneal tissue, with maintenance of transparency, was regarded as impossible until Von Hippel in 1878 described a technique which resulted in a number of temporarily transparent grafts. The first permanently successful transplant was described in 1907. Since that time, with constant improvements in technique, and with experimental work to determine the conditions necessary for successful transplantation, it has become possible to state that such transplantation undertaken in suitable cases is a practical procedure.

The conditions for which such an operation may be performed are very limited and constitute only a very small percentage of the causes of all blindness. The conditions *under* which such an operation *should* be performed further limit this small group. The transplantation of cornea is useful only in those individuals in whom the cornea has become opaque through disease or injury and in whom the remaining ocular structures are in good condition. This excludes the large number of blind with glaucoma, detached retina, atrophy of the optic nerve, inflammatory diseases of the retina, and choroid and pupillary membranes following severe iritis. The presence of a cataract is not in itself a contraindication to transplantation of the cornea, but makes the operation much more difficult and naturally reduces the chance of success. The operation should not be done in an individual who has one sound eye and should not be done, in my opinion, in a one-eyed individual whose vision is 1/10 or better, since the resultant visual acuity is in the majority of successful cases only 1/10. It is, then, an operation to be reserved for a small number of desperate cases. One could estimate that in San Francisco and its vicinity not more than a dozen such individuals would present themselves.

Several hundred such operations have now been performed in all parts of the world, and it is possible to state what results may be expected. The transplanted tissue will take in 80 per cent of cases (those eyes in which it does not take are usually lost). About 25 per cent of all grafts which take remain transparent with improvement in vision from 1/10 to 9/10. The remainder become opaque. It may be said, in general, that a properly selected case has a 25 per cent chance of getting useful vision and a 50 per cent chance of improvement. The best results are obtained in cases of corneal opacity following interstitial keratitis, in which as high as 75 per cent successful transplants have been reported. In opaque leukomas, due to other diseases, the incidence of improvement after transplantation is less than 10 per cent. It is generally recognized that the more normal corneal tissue there is present in the bed the greater the chance of success. The more fibrous tissue the less the chance of success.

Corneal tissue for grafting may be taken (1) from living eyes enucleated for such reasons as intraocular tumor, severe injuries, patients in whom the cornea is healthy; (2) from eyes of stillborn infants; (3) from the eyes of cadavers. In the last two cases the eye must be used within an hour after death or may be preserved by freezing at 3 degrees centigrade for use within three days. It is believed that the younger the donor the better the tissue is for grafting, and that the cornea of a stillborn has greater viability than that from other sources. This fact, together with the greater ease of obtaining and preserving the tissues of infants makes this source the most desirable if suitable living eyes are not available. Compatibility of blood groups appears to have no bearing on the outcome. If one considers the fact that the number of candidates in this country is very small, and that at least two grafts may be taken from any one eye, the need for preserved material does not appear great.

Numerous techniques have been advocated. The one which is finding general acceptance at present is that of partial penetrating keratoplasty. In this operation a square or disc, about 4-5 millimeters in diameter and of the entire corneal thickness, is removed from the center of the opaque cornea and replaced by a corresponding section from the donor cornea. The graft is held in place by conjunctival flaps or by fine silk bridle sutures which are anchored in the surrounding cornea and merely pass over the graft to prevent its displacement. Beveling the margins of the graft inward provides a broader nutritional surface, and at the same time prevents the graft from falling into the anterior chamber. Vascularization of the graft disposes to its opacification. An avascular graft which takes is apt to remain clear. The grafted tissue is for a long time insensitive and must be protected much like an anesthetic cornea. The period of hospitalization is usually three to four weeks, and during at least the first week special nursing is needed to prevent any exertion or sudden movement on the part of the patient which might dislodge the graft. The financial burden is, therefore, considerable.

If a graft has taken but has become opaque, a second graft may be attempted after a suitable interval. It sometimes happens that the first graft becomes partly opaque, but at the same time provides a more suitable ground for a second transplant, which will give improvement in vision.

490 Post Street.

INFLUENZAL BRONCHOPNEUMONIA*

BILATERAL ALTERNATING PNEUMOTHORAX

By Bernard E. McGovern, M.D.
San Fernando

AND

Leon A. Frankel, M.D.
Philadelphia, Pennsylvania

THE pneumothorax treatment of nontuberculous pneumonia and lung abscess is beset with many limitations and contraindications; but since this case presented so many unusual and enlightening features, we feel that a report of it may elucidate some of the problems connected with this form of therapy.

REPORT OF THE CASE

The patient, a white female thirteen years old, consulted one of us (L. A. F.) on December 1, 1934, because of acute rhinitis, with a temperature of 101 degrees Fahrenheit. She was much improved on the next day; but on December 3, 1934, she suffered a severe chill followed by prostration, a hacking cough, chest pains, headache, general cyanosis, a temperature of 105 degrees Fahrenheit, a pulse rate of 140, and a respiratory rate of 40 per minute. She was admitted to the medical wards of St. Luke's and Children's Hospital on December 4, 1934, with a diagnosis of beginning pneumonia. She then presented a blood pressure of 88/62 millimeters mercury; crackling râles in the left midscapular line between the second and third intercostal spaces, and between the seventh and eighth intercostal spaces in the right midscapular line; bronchial breathing beneath the left scapula; bronchial breathing and areas of dullness over the right lower lobe posteriorly. An influenzal type of pneumonia was suggested by the white cell count (Table 1), which remained low until December 11, 1934, about the time the multiple lung abscesses and a small purulent effusion of the left pleura became evident.

The patient had been hospitalized previously for three days (May 9, 1934 to May 12, 1934) because, beginning August, 1933, and continuing during the winter of 1933 to 1934, she developed amenorrhea, anorexia, loss of weight (from 135 pounds to 90 pounds) (May 9, 1934), emotional instability, colicky abdominal pains, weakness and fatigue, frontal headache, and purulent nasal discharge. The findings during this hospitalization were mainly: restlessness; general muscular atrophy; long slender extremities; extensively pitted fingernails; cold hands and feet with marbled vasomotor cyanosis; dry skin and hair; height, 66 inches without shoes; weight, 90 pounds in kimono; internal strabismus; slight congestion of the nasal mucous membranes with thickening, spurs, and deviation of the septum, which caused pressure on the middle turbinates; injected lymphoid follicles on the posterior pharyngeal wall, and small lymphoid tufts in the tonsillar fossae; a number of palpable cervical glands; a few post-tussive râles in the left lower posterior axillary region, persisting after deep breathing and coughing; a blood pressure of 92/65 millimeters mercury. Genital examination (made by Dr. Charles Dunn) showed lack of pubic hair; underdeveloped external and internal genitalia; atrophic breasts, chiefly the left; some pigmentation about the right areola. The temperature ranged from 97.8 degrees Fahrenheit in the morning to 100.2 degrees Fahrenheit in the evening. The basal metabolic rate was normal; and the intracutaneous tuberculin test, and Wassermann reaction for lues were negative. Dr. Charles Dunn,[1] a consultant, diagnosed the condition as Simmond's disease; but we felt that there was an infection present which was depressing a naturally weak endocrine system; and after first considering incipient pulmonary tuberculosis, we decided that there was an upper respiratory infection (nose and throat) causing a mild chronic pneumonitis.

On December 17, 1934, five cubic centimeters of thick yellow fluid were removed from the left costophrenic sulcus; and besides this, the usual treatment for pneumonia, including oxygen and digitalis for circulatory weakness, was employed without apparent result until December 20, 1934, when pneumothorax was begun. Within sixteen hours after left-sided pneumothorax was instituted (Table 2), her temperature dropped from 104 to 100 degrees Fahrenheit; and the general improvement, including lessened cyanosis and circulatory collapse, was in accordance with the fall in temperature (Table 3). Following the induction of right-sided pneumothorax (Table 2), the temperature fell from 100.5 to 99 degrees Fahrenheit within one hour; and from this point onward her recovery was rapid.

The probable presence of dense adhesions between the pleural surfaces posteriorly and laterally was suggested by a negative rise of the manometer, without further oscillations, when we first attempted to give pneumothorax in these regions. The stretching and tearing of cobweb adhesions in the more anterior pleural spaces were suggested by a gradually widening circle of pain about the puncture sites when induction was first done more anteriorly on each side. This tendency to obliterative pleuritis, combined with a very mobile mediastinum, necessitated keeping the air in both pleural cavities well balanced to prevent the adherence of one or the other lung to the chest wall. However, this tendency of the mediastinum to bulge to one or the other side apparently permitted enough collapse in the side, containing the least air, to be of benefit to that side.

From December 4, 1934, to February 6, 1935, inclusive, six sputum smears showed pneumococcus once, short chain

* From the medical department of St. Luke's and Children's Hospital, Philadelphia, Pennsylvania.

1 Dunn, Charles: J. Nerv. and Ment. Dis., 83:166 (Feb.), 1936.

Table 1.—*Blood Counts and Hemoglobin Determination*

December 4, 1934. Hemoglobin 83 per cent (Dare); red cells 4,150,000; white cells 4,130; neutrophils 79 per cent, lymphocytes 19 per cent, mononuclear cells 2 per cent.
January 6, 1934. White cells 3,600.

	Shilling Differential Counts								
Dates	Lymph. Per Cent	Mono. Per Cent	Eos. Per Cent	Baso. Per Cent	Myel. Per Cent	Juven. Per Cent	Stab. Per Cent	Seg. Per Cent	Total White Counts
12/6/34	28	8	0	0	15	13	20	16	6,200
12/10/34	7	3	1	0	5	8	42	34	6,600
12/11/34									18,600
12/12/34									27.600
12/17/34	4	3	0	0	1	9	20	63	19,600
12/28/34	12	6	0	0	1	3	48	30	13,000
2/1/35	32	0	6	0	0	0	3	59	7,000

TABLE 2.—*Pneumothorax Record*

Dates	Side Given	Opening Pressure* Cubic Centimeters Water	Closing Pressure* Cubic Centimeters Water	Amount of Air Given, Cubic Centimeters
December 20, 1934	Left	−8, −10	−7 −9	250
December 22, 1934	Right	−8, −10	−7, −10	110
December 24, 1934	Left	−5, −11	−5, −10	75
December 25, 1934	Right	−4, −6	−3, −6	50
December 27, 1934	Left	−5, −12	−4, −10	150
December 29, 1934	Left	−5, −10	−4, −8	100
December 31, 1934	Right	−7, −11	−6, −10	150
January 4, 1935	Left	−6, −12	−4, −7	250
January 5, 1935	Right	−8, −12	−7, −11	125
January 8, 1935	Right	−6, −13	−4, −10	150

The pneumothorax was continued after the above fashion until April 26, 1935.
* The difference between the tops of both columns of water was taken as the manometer reading.

streptococcus four times, micrococcus catarrhalis four times, and an abundance of pus cells at all times; a sputum culture showed short chain streptococcus on December 12, 1934; no tubercle bacillus, Friedlander's bacillus, spirillae, fusiform bacillus, yeast or mold organisms were found at any time. Urinalysis (December 4, 1934) was negative. Mantoux tuberculin test (using O. I. mgm. O. T.) was negative after forty-eight hours on December 17, 1934, and January 14, 1935. Red cell sedimentation test was positive (thirty minutes) on December 17, 1934.

Roentgenograms of the chest (Dr. Joseph Post) revealed: December 5, 1934, slight elevation of left diaphragmatic leaflet; thickened pleura with early pneumonic infiltration in the lower part of the left side; compensatory emphysema of the right upper lobe. December 8, 1934, a pneumonic process involving about the lower three-fourths of the left lung, the right lower and middle lobes, and the lower part of the right upper lobe; pleural thickening between the right middle and lower lobes, and over the lower right lateral chest wall; compensatory emphysema in most of the right upper lobe. December 15, 1934, decreased area of consolidation in the right middle lobe with beginning central softening; mottled infiltration of the lower three-fourths of the left lung with increased density of the left costophrenic sulcus. December 19, 1934, multiple small cavities (largest not over six or seven centimeters in diameter) throughout the lower three-fourths of the left lung; right lung field unchanged. December 21, 1934, a pneumothorax on the left side apparently partly emptied the abscess cavities; beginning cavitation in the right middle lobe; a small cavity in the lower portion of the right upper lobe. December 26, 1934, a small left-sided pneumothorax with lessened infiltration, partial closure of the cavities, and a mediastinal shift to the left; the right side showed moderate pneumothorax, two fissural pleura adhesions between the middle and lower lobes and extending to the chest wall, persistence of the middle lobe cavity, and absence of the upper lobe cavity. January 2, 1935, increased collapse of the upper left side, less infiltration, and more cavity closure; the right hemothorax exhibited less pneumothorax, the persistence of the cavity and fissural pleura adhesions. January 8, 1935, almost complete absence of bilateral pneumothorax, but less infiltration and cavitation of both lungs. January 10, 1935, satisfactory bilateral pneumothorax, lessened infiltration and marked cavity closure in both lung fields.

The patient was discharged from the hospital on February 7, 1935, with our final diagnosis of influenzal bronchopneumonia with multiple streptococcal lung abscesses. Her weight was then 105.5 pounds; her cough and expectoration were slight; her other symptoms had disappeared. The pneumothorax was continued in the out-patient department until April 26, 1935, then stopped. Since her improvement had been progressive and no tuberculosis was found, no attempt was made to combat the steadily developing obliterative pleuritis by the use of pressures less negative. Her weight was 114¼ pounds on April 28, 1935; and beginning on this date, three successive daily sputum examinations showed no tubercle bacilli. An x-ray film (April 30, 1935) revealed a small bilateral pneumothorax, and considerable linear fibrosis in both lung fields, especially in the lower lobes.

TABLE 3.—*Peak Variations of Temperature, Pulse and Respiratory Rates*

Dates	Temperature, Degrees F.	Respiratory Rates, Per Minute	Pulse Rates, Per Minute
12/4/34	104.4	32	120
12/11/34	99.4	28	104
12/20/34	104	40	140
12/28/34	100.4	38	148
1/3/35	98.2	28	116

After January 3, 1935, the temperature, pulse and respiratory rates rapidly stabilized toward normal.

COMMENT

The case report presented is of a patient who had influenzal bronchopneumonia, complicated by multiple, bilaterally distributed lung abscesses of probable streptococcal origin. When all orthodox treatment had failed and the patient was rapidly approaching moribundity, bilateral pneumothorax resulted in prompt reduction of toxin absorption with loss of temperature, dyspnea, and cyanosis; clearing of infiltration, closure of cavities, and recovery rapidly followed. An obliterative pleuritis, combined with a very mobile mediastinum, made it difficult to preserve a satisfactory pneumothorax and to keep the chest contents from shifting to one or the other side. Such shifting might have resulted in complete adherence of either lung to the chest wall.

Our aim was to gradually produce a moderate collapse of the lungs, and to maintain it by giving small amounts of air at short intervals because too much collapse might have lowered the vital capacity

too greatly; rapid administration of large amounts of air could have prevented absorption of the alveolar air between refils, resulting in lowered vital capacity, distortion and shifting of the chest contents with resultant bending and crowding of the cardiovascular apparatus and bronchi, and blocking of abscess drainage.

The use of pneumothorax for lung abscesses, especially for large thick-walled abscesses, is extremely limited and entails the danger of spreading the infection to contiguous tissue. Our fortunate results in this case were due largely to the fact that the abscesses were small and still in the acute, thin-walled stage. If pneumothorax is used when the abscess is close to any pleural surface, adhesions may prevent collapse of the cavity, or tear the lung and cause bronchial fistula and empyema. Adhesions of any part of the lung or pleura may distort the lung and block the abscess drainage if pneumothorax is used.

The status of pneumothorax in the treatment of nontuberculous pneumonia is not yet established; and we know of no other case of bilateral nontuberculous pneumonia wherein it has been successfully tried before. It would seem that our good results in this case were due mainly to the collapsibility of the involved tissue. Also the discrepancies reported in the literature, concerning the results of pneumothorax in nontuberculous pneumonia, may be partly explained by the collapsibility or noncollapsibility of the infiltrated areas.

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CARDIOSPASM

By GUNTHER W. NAGEL, M.D.
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IN a recent publication,[1] we reported the good results of hydrostatic dilatation for cardiospasm. Since this report several other patients have been treated with equal success. One of these cases presented the following unusual sequence of events.

REPORT OF CASE

A woman of sixty-two years of age had increasing difficulty in swallowing for a period of four years. In the beginning, liquids caused as much trouble as solids. Her condition gradually became more marked and she regurgitated her food frequently. She described the regurgitated material as never having entered her stomach. Her weight decreased thirty pounds in a few months. Six months ago she had a sudden, severe epigastric pain, and was unable to retain any food. A diagnosis of complete obstruction at the lower end of the esophagus was made elsewhere and a gastrostomy was done.

The patient came to us after having been fed for six months through a gastrostomy tube. X-ray pictures showed a typical cardiospasm with dilatation of the esophagus. The spastic esophagus was dilated with a Plummer hydrostatic dilator, using a previously swallowed thread as a guide. Within twenty-four hours her eating was normal, and in a few days her gastrostomy opening closed. In a recent check-up on this patient, we found that she has gained fifteen pounds in four months and has been entirely free of all former symptoms since hydrostatic dilatation was performed.

1 Nagel, Gunther W.: Cardiospasm, Calif. and West. Med., Vol. 45, No. 3 (Sept.), 1936.



Fig. 1.—Cardiospasm, showing dilated esophagus.

COMMENT

In the majority of cases the diagnosis of cardiospasm is easily made. This patient's age and the story of complete obstruction requiring gastrostomy, together with the x-ray films she brought with her, suggested a malignant stricture of the esophagus. Against this was the long duration of symptoms and our own x-ray findings. The complete relief of this patient, and her return to normal habits and manner of eating, emphasizes two points: the importance of considering cardiospasm as a cause of esophageal obstruction, and the good results obtained by hydrostatic dilatation.

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Carbuncle.—Berman believes that a study of the microscopic anatomy of the skin on the back of the neck and on the face clearly explains the behavior of carbuncle and definitely establishes carbuncle of the face as a distinct entity. He studied 125 cases of severe carbuncle, eighty-three in men and forty-two in women. The majority occurred on the back of the neck in both men and women, but carbuncle occurred twice as commonly on the face of women, whereas it was more common on the scalp of men. The face is a dangerous place, for four of the nine deaths occurred in facial carbuncle. Most carbuncles occurred in patients without debilitating disease; this was more noticeable in women than in men. Obviously the "picking" of cutaneous infections is an important causative factor. Of all associated diseases, diabetes is most frequent. Carbuncle of the face should be treated conservatively. The general mortality in facial carbuncle was 40 per cent. Carbuncle elsewhere on the body, associated with severe debilitating disease, must also be treated conservatively. Five of the nine deaths occurred in this group. The general mortality was 18 per cent. Carbuncle not on the face and not associated with severe disease should be treated by surgical intervention. This may be by excision or incision. The general mortality in this group was 1 per cent.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

BONE TUMORS

I. SYMPTOMS AND DIAGNOSIS

George J. McChesney, M. D. (450 Sutter Street, San Francisco).—There is no more important and often difficult problem that may suddenly confront the general practitioner and specialist than the proper diagnosis of an abnormal bony mass. Usually a very careful history, use of laboratory aids and especially good x-rays will establish the nature of the tumor satisfactorily. This is not always the case, however. Osteomyelitis, tuberculosis, and syphilis may present masking symptoms which can cause considerable chagrin when the pathologist has made his report. Of even more importance is the question of malignancy with possible amputation of a limb. Here let me plead for the greater use of a biopsy in such doubtful and important cases. It has never been proved that such a procedure has disseminated a malignancy, or that cases so handled have metastasized more rapidly. With a properly done biopsy (and this means removal of an adequate amount of tissue, not a punch biopsy, with access to a skilled pathologist), one can do whatever is indicated with the feeling that all possible precautions have been taken. The pathologist is the court of last resort, but even he may have trouble in deciding upon certain varieties of sarcoma. As an additional precaution an x-ray treatment can be given before the biopsy and another afterward, if the pathologist's opinion is delayed while the specimen is being decalcified.

In bedside study and diagnosis, the all-important question is that of possible malignancy. The most practical way to answer this is to keep in mind the benign tumors and their symptoms. If the tumor can be classified under any one of them, while at the same time osteomyelitis, tuberculosis, syphilis, and even callus, following fracture, can be ruled out, the problem is solved.

Benign Tumors.—The most common benign tumors are:

1. Exostoses or osteochondromas, characterized by fairly constant age limit of ten to twenty-five years, lack of pain, location near ends of long bones, and attachment by a broad base or pedicle. The x-ray shows fairly normal bone structure.

2. Chondromas, occurring from twenty to thirty years, usually in phalanges of hands and feet, occasionally in ribs and sternum. In x-ray show as a central cyst with expanded cortices. Soreness is slight and growth gradual.

3. Bone cysts, usually between ages of ten to fifteen, rarely over twenty. Distribution is pretty constantly in upper halves of the humerus, femur and tibia in order of frequency. The cortex is expanded and thinned, with a resultant tendency to pathologic fracture. Soreness is negligible and growth slow.

4. Giant cell sarcomas occur usually after thirty, grow faster with some pain, and may be related to trauma. They are most common in the epiphyses of long bones ending in knee and wrist joints, have a thin bony shell which is soon perforated.

Malignant Tumors.—Turning now to the malignant tumors, we have several forms of sarcomata, all with a very useful diagnostic clue, viz., periosteal changes in the x-ray. Primary chondrosarcomas occur at ages of fourteen to twenty-one, usually about the knees and with pain. Secondary chondrosarcomas occur in adults, about ribs and sternum, and are slow and painful. Sclerosing osteogenic sarcomas occur between the ages of fifteen and twenty-five, usually in the region of the knee, and run an acute, painful course. Osteolytic osteogenic sarcomas differ only in running a slower course. The main identifying characteristic is, as above, periosteal growth shown in x-ray.

One form of sarcoma, however, the so-called Ewing tumor, presents diagnostic difficulty in its resemblance to chronic forms of osteomyelitis. Both may have pain, fever, and leukocytosis in the same age groups. The x-ray is more helpful, especially as the tumor does not form an involucrum. Here biopsy may help, but must go deep enough to get the cells in the center of the tumor.

Multiple myelomata can be recognized by incidence after age of sixty, multiplicity, punched-out x-ray appearance, etc.

Metastases from carcinoma arise principally from disease of the prostate and breast. Hypernephroma is third in frequency. Pain is usually marked, fracture can be expected and involvement is most frequent in spine, pelvis, and femur. X-ray picture is essentially of a destructive character.

To give the differential diagnosis between these tumors and the familiar diseases of osteomyelitis, tuberculosis, and syphilis, is beyond the limit of this discussion; but if the cardinal and well-known symptoms of these diseases are kept in mind, their separation from the tumors is not usually difficult, except in the case of the Ewing sarcoma.

* * *

II. PROGNOSIS AND TREATMENT

Robert L. Carroll, M. D. (Orthopedic Hospital, Los Angeles). *Benign Types.*—Benign bone tumors are usually very slow-growing, and since they do not metastasize cause local trouble only. Without treatment they will probably enlarge some. Osteochondromas usually grow most during the rapid growth of bones in adolescence or even earlier, while other bone tumors may continue to grow in adult life.

Osteomas and osteochondromas may cause mechanical blocking of the near-by joint, or tendons may ride over them, causing a snapping sensation when they ride over the crest of the tumor, and in doing so may cause some pain. If discomfort is great, the mechanical obstruction should be removed by excision of the tumor. There is a moderate tendency to recurrence after excision, particularly in the osteochondromas; hence postoperative irradiation is advisable. Geschickter and Copeland report that 7 per cent of osteochondromas become malignant.

Although *endochondroma* is a benign tumor, the larger the tumor the more potentially malignant it becomes and is probably best treated by irradiation. The smaller ones are best treated by complete curettage of the tumor mass, but if too large for complete removal irradiation should follow the surgery, especially in the long bones—as the tibia—though they occur here rarely. There is a definite tendency to recurrence.

Bone cysts may increase in size until they begin to destroy the cortex of the bone enough to allow a pathological fracture, following which there may be a spontaneous cure. Bone cysts usually respond well to irradiation or curettage. If curettage is done it should be as complete as possible, and the cavity should be filled with bone chips. There is a moderate tendency to recurrence.

Considerable discussion has arisen, and there is voluminous literature concerning *giant cell tumors*. All agree that this tumor is essentially benign. Some dogmatically state that it is always so, whereas others equally dogmatically state that the viability and aggressiveness of the tumor cells may change toward the malignant type and may metastasize to the lungs though extremely rarely. Each side presents its arguments not without some justification, and it would seem logical to assume that a complete correct answer has not yet been found. The treatment of these tumors has changed considerably in the last few decades from radical to more conservative, and in place of amputation resections have given many good results. Then curettage of the tumor in the early stages was found to be satisfactory and did not leave the deformity that resection would cause, and now the treatments appear to lie between curettage and irradiation. Even though irradiation has not been accepted as the method of choice by all, it has given some good results. More time and study of these cases will doubtless eventually clear up some of the points not thoroughly understood at present. Without treatment they usually continue to grow, and sometimes with treatment. No one set rule can be given for treatment of all giant cell tumors. All the data must be considered before the decision is made. In many of the cases early irradiation will prove quite satisfactory. Also complete removal by curettage and filling the cavity with bone chips will usually give good results. There is approximately 20 per cent recurrence following curettage. If curettage is selected as the method of treatment, Kolodny states that it should be continued, even with recurrences, rather than change to irradiation, and that it is even better to amputate before changing from repeated curettage of the same tumor to irradiation of it, as there seems to be good reason to believe that the irritation from surgery, together with irradiation, may make the tumor cells more viable and aggressive, and the possibility of malignant change and metastasis becomes greater. When the tumors are found early, irradiation usually gives good results. If a tumor is seen for the first time in the advanced stage, complete removal may not be practicable; but even though it is considered a benign tumor, if amputation would give better practical results there is no reason why whatever method that will do so should not be used. Also, in the very large tumors, if they are curetted, there is the danger of hemorrhage which has been reported in some cases to be fatal. Also, if they are packed open, there is the danger of infection with subsequent osteomyelitis, and in such a case it can be clearly seen that an amputation, if this were about the ankle or the knee, and if the tumor were very large, may give a better practical result. With adequate treatment of the tumor in the early stage there should be a good prognosis.

Malignant Types.—Malignant bone tumors have a grave prognosis, although a few five-year cures have been reported. Usually the patient may live anywhere from a few weeks to a few years, depending upon the rapidity of the growth and the degree of malignancy of the tumor. It has been noted that the nearer the trunk the greater the degree of malignancy appears to be and, consequently, the worse the prognosis. Whenever the diagnosis is in question, the patient should have the advantage of irradiation until the diagnosis is established. Since the prognosis is grave, whatever makes the patient's remaining life most comfortable and most useful should be used. The first thing requiring attention usually is relief of pain, together with prevention of increased pain in the future, for which irradiation is desirable, as well as for the prevention of growth of the tumor. If it were possible to amputate before there are any metastases, this should affect a cure. Since it has been proved that metastasis to the lungs has occurred by the time the primary growth was discovered, although it was in so early a stage that it was barely discernible by x-ray, amputation should be approached, not with the idea of preventing metastasis entirely, but to relieve the patient of pain which may become almost unbearable with a rapidly growing tumor, some of which may become so vascular that prevention of ulceration and hemorrhage becomes a problem. Also, the foul discharge from such an ulcerating tumor mass would probably be more unpleasant than the sight of an amputated leg. Most surgeons experienced with malignant bone tumors in the lower extremities prefer amputation, and this should be done between two tourniquets, the proximal one for hemostasis, and the distal one to prevent a possible dislodgment of tumor cells into the blood stream. Even if biopsy is done, this precaution should be taken so that the amputation may be done if the pathology confirms the diagnosis. Some of the cases with least discomfort and most useful lives have been those of bone malignancy in the lower extremities, recog-

nized apparently in the extremely early stage with immediate amputation, and later satisfactory artificial leg, which allows the patient to regain satisfactory function of the lower extremity and live a useful, comfortable life for a while even though death may occur years later from pulmonary metastasis. Resections have been done at times, but are not as much in favor with our present advancement in prosthetic surgery as amputations. Disarticulations of the proximal joints has also been done with the hope of trying to avoid metastasis, but the end-results have been apparently no better than with amputation, even though the malignant tissue may involve the marrow cavity of the bone at site of amputation without being apparent in x-ray. Hence, amputation, preceded and followed by irradiation, for malignancies in the lower extremities, seems to give the best practical result. Amputations and disarticulations in the upper extremities have not proved as satisfactory as in the lower extremities. Here irradiation usually is the method of choice where it can be skillfully applied to alleviate the pain and retard the growth of the tumor. It is not without its disadvantages, however, because insufficient irradiation may stimulate the new growth, whereas too much irradiation is dangerous and may ankylose the near-by joint by sclerosing the soft parts. The psychic shock to the patient is probably greater in amputation of the upper extremities than in the lower. Malignancies of the trunk are best treated by irradiation.

Osteogenic sarcomas are more frequently found in children, and are usually more malignant and more rapid in growth than in adults, and their expectancy as to life is not so long. This seems logical when we remember that these tumors are most frequently seen in children, not only in areas where the growth is most intense, but also at an age when the growth is most rapid. Treatment is as outlined above.

Primary chondrosarcomas and chondromyxosarcomas are extremely malignant and amputation is the treatment of choice. In spite of the fact that these tumor cells are radiosensitive, irradiation seems to be of little benefit except as a palliative measure, again showing that radiosensitivity and curability are not synonymous terms. Such secondary tumors are much less malignant, and their growth is much less rapid. Hence, the prognosis is better for longer life, though treatment is as above.

Ewing's tumor or endothelioma has practically the same prognosis and requires the same treatment as osteogenic sarcoma, except that it responds very readily to irradiation; and if the average span of life is considered, the chances for longer life are better on an average with the former.

Myelomas seldom are amenable to surgery, since they rarely occur singly in areas readily accessible to surgery, hence irradiation is the method of choice. Some support, or even absence of weight bearing, may become necessary, particularly in involvement of the spine, to prevent pathological fractures and collapse. The average span of life is usually a little better with these cases than with osteogenic sarcomas.

Neurosarcomas and fibrosarcomas, though not bone tumors, may invade bone. The former is extremely malignant; the latter grows much less slowly, and should be treated as sarcoma.

Soft tissue tumors, metastasizing into bones, such as cancer, have to be considered largely in a palliative manner, as practically nothing from a therapeutic standpoint can be expected except alleviation of pain by irradiation, which may also give some restraint to the new growth. In the advanced stage complete recumbency may be necessary to prevent collapse, particularly of the involved vertebral bodies.

Summary.—Since benign bone tumors do not metastasize and cause local trouble only, usually in a mechanical way, excision of the tumor mass should give a good prognosis and relieve the local disturbance. Malignant bone tumors have a grave prognosis, and life's span, though definitely limited, may be unquestionably prolonged, and the patient made more comfortable, by adequate measures such as irradiation or amputation, especially in the lower extremities.

* * *

III. X-RAY DIAGNOSIS OF BONE TUMORS

KENNETH S. DAVIS, M.D. (St. Vincent's Hospital, Los Angeles).—The demonstration of a bone tumor on the roentgenogram is usually easily done, but the interpretation of these findings in terms of pathology presents a good example of the limitations of the x-ray in diagnosis. It should always be remembered that the x-ray has no microscopic attachment.

In the roentgenological analysis of bone tumors certain x-ray findings should be given special consideration:

1. The location of the tumor.
2. The point of origin of the tumor—medullary canal, cortex, periosteum, metaphysis or epiphysis.
3. The condition of the bone cortex—thickened, thinned, expanded or destroyed.
4. Presence or absence of periosteal bone production.
5. The invasion of surrounding bone or soft tissues.
6. Is the tumor single or multiple?
7. The presence or absence of metastasis in other parts of the body.

Clinical and laboratory data of aid to the radiologist in the differential diagnosis of bone tumors:

1. The age of the patient (important).
2. Duration of symptoms. (This gives an index of the rapidity of growth of the tumor.)
3. History of trauma.
4. Pain. Unexplained pain in the region of a bone or joint, with or without history of trauma, should call for repeated x-rays at suitable intervals until a definite diagnosis has been made.
5. The size and appearance of the tumor on physical examination.
6. Loss of weight and strength.
7. Anemia.
8. The finding of the primary tumor in cases of suspected bone metastases.

9. Systemic reactions. Fever, leukocytosis, etc., are more apt to occur in the rapidly growing malignant tumors than in benign tumors.

10. Wassermann, especially useful in differentiating between Ewing's tumor and syphilis.

11. Other laboratory data, especially the hemoglobin, the white count, and the urine analysis for Bence Jones albuminuria.

12. Biopsy.

The differential diagnosis between primary benign and malignant bone tumors:

1. Benign tumors are sharply delimited and their borders are smooth, whereas the borders of malignant tumors are hazy and indistinct due to the fact that they infiltrate into the surrounding tissues.

2. Benign tumors which are medullary in origin are slow-growing, taking the path of least resistance, so that they tend to grow up and down the medullary canal rather than toward the cortex. This gives them an oval shape. Eventually they cause an expansion and thinning of the cortex which, however, is always intact.

In malignant tumors the tumor spreads by infiltrating and destroying the cortex instead of expanding it. Their shape is more or less spherical, as they grow equally in all directions.

3. Other findings, such as the presence of metastases in other parts of the body, rapidity of growth, etc., will aid the roentgenologist in the differentiation.

Exostoses.—Exostoses are not true bone tumors, but are simply an irregular extension of normal bone into the surrounding soft tissues. They are characterized by their slow development, by the fact that their structure is that of normal bone and that they blend into the bone at their point of origin, with no break in the continuity of the cancellous bone markings. They may appear in any part of the skeleton, but are most commonly found near the ends of long bones. They are divided into two general groups, depending on their shape: (1) the table top, which is broad and very dense; and (2) the pencil type, which is more or less elongated.

Osteochondroma.—A true bone tumor, containing variable amounts of bone and cartilage. These tumors are attached to the cortex by a pedicle and have a typical cauliflower shape. The typical tumor is sharply delimited, and shows no tendency to invade the surrounding soft tissues.

Multiple Cartilaginous Exostoses.—In this bone affection there is found multiple osteocartilaginous outgrowths from the ends of long bones and from the flat bones. It is probably due to a disturbance in the proliferation and ossification of the bone-forming cartilage. It is a hereditary affection.

Chondroma (Enchondroma).—Benign bone tumors; their origin probably being due to misplaced cartilage cells. They are both medullary and cortical in origin. They cause an irregular, asymmetrical enlargement of bone, are usually multiple, and are most common in the hands and feet. These tumors are less dense than normal bone, are circular-shaped and sharply delimited.

Bone Cysts.—Solitary bone cysts usually occur in the long bones and in the jaw. They are characterized by sharply defined, rounded or oval-shaped areas of rarefication which may or may not be trabeculated. The tumor is generally medullary in origin, causing a thinning and expansion of the cortex which, however, is always intact.

Cysts never occur in the epiphysis: an important differential point from giant cell tumors.

Solitary bone cysts are seldom due to hyperparathyroidism, but before the latter is definitely excluded other bones should be x-rayed.

Giant Cell Tumor.—A benign tumor, usually occurring as a central, single tumor in the ends of long bones, characterized on the roentgenogram by its asymmetrical spherical shape and its tendency to be located in the epiphysis. The cortex is markedly expanded, and in some instances may be perforated; but there is no invasion of the surrounding soft tissues. The tumor is of less density than the surrounding bone and is trabeculated. Its borders in most cases are sharply delimited.

Osteogenic Sarcoma.—Bone sarcoma is a rapidly growing, highly malignant bone tumor, appearing generally as a single lesion in the shaft of a long bone in a relatively young individual. The tumor metastasizes early, usually through the blood stream.

The Bone Tumor Registry recognizes several "anatomic" types of osteogenic sarcoma, although certain of these groups cannot be distinctly differentiated on the roentgenogram.

1. Osteolytic sarcoma: A destructive tumor arising in the region of the marrow cavity in the shaft of the long bones, characterized on the roentgenogram by a central, more or less spherical area of bone destruction, the tumor dissolving the bone cortex without expansion.

2. Sclerosing sarcoma: A type of osteogenic sarcoma characterized on the roentgenogram by the formation of dense new bone which obliterates the normal osseous markings. This is usually associated with periosteal new bone formation.

3. Periosteal osteogenic sarcoma: This subdivision is still recognized by the Bone Tumor Registry, although there are very few cases in which the periosteum is the only point of involvement. On the roentgenogram there is seen a tumor completely surrounding an intact bone shaft. The tumor remains encapsulated by the periosteum for some time. Erosion of the cortex occurs only in the later stages of the disease. The diagnostic feature is the presence of strands of osseous material radiating throughout the tumor at right angles to the shaft, producing a characteristic "sun ray" appearance.

4. The Undifferentiated type: Characterized by irregular patchy areas of bone destruction. This form closely simulates certain types of bone metastases.

Ewing's Tumor.—This tumor, as seen on the roentgenogram, is most often diffuse and situated near the mid-shaft region of a long bone. There is usually noted an expansion of the shaft with periosteal new bone formation, which in structure resembles onion peel. Later the cortex becomes thickened and shows an increase in its density. Ninety-five per cent of all reported cases are between four and twenty-five years of age.

The exact diagnosis in most of these tumors is seldom made without a biopsy.

Multiple Myeloma.—A rather uncommon form of primary bone tumor characterized by the presence of many foci in the bone marrow of adults. The ribs, skull, spine, pelvis, and the upper ends of the humerus and femur are sites of predilection. The typical roentgenographic findings consist in multiple, small areas of rarefication which are circular in shape and usually sharply defined. As the disease progresses it becomes more and more similar to metastatic carcinoma in its appearance. Bence Jones albuminuria in the urine occurs in 60 per cent of these cases. In the skull there are often found multiple "punched out" circular-shaped areas, different in appearance from bone metastases.

Bone Metastases.—There are two types of metastases to bone recognizable on the roentgenogram:

Osteoclastic (osteolytic) metastases characterized by irregular multiple bone destruction, with a normal bone outline and no evidence of invasion of surrounding soft tissues.

The one exception is in the metastases from hypernephroma, in which invasion does occur.

Osteoplastic metastases: A form of metastasis of slow development, characterized by production of dense bone around the growth. This type is usually primary in prostatic carcinoma. The bones most commonly involved are the pelvis, sacrum, and lumbar spine.

"*Sight Begins at Forty.*"—Properly cared for, the eyes of the middle-aged may be as efficient as they ever were in youth, Dr. Ellice M. Algar points out in an article entitled "Sight Begins at Forty," published in *The Sight-Saving Review*, quarterly journal of the National Society for the Prevention of Blindness. Doctor Alger is professor of ophthalmology at the New York Postgraduate Medical School and the winner of the 1938 Leslie Dana Gold Medal for his lifelong work for the prevention of blindness and the conservation of vision.

"Most people enter the period of middle life with a feeling of profound discouragement," says Doctor Alger. "They are increasingly conscious that they can no longer do things as well or as easily as they once did, and the joy of accomplishment has gone out of them. Ambitions have failed of realization or have proved disappointing. Health itself, instead of being effortless and automatic, requires a conscious or subconscious attention that it never did before.

"One of the most discouraging things about the whole period is the gradual failure of the eyes, which are a very essential factor in a contented and useful middle age. For age brings its own eye problems quite different from those of youth. The eyes tire sooner than they did and vision is not so automatically clear. The acute inflammations and infections are not so common as in youth, but they have a greater tendency to become chronic.

"But the picture is not by any means as drab as it seems. As a matter of fact, much can be done to mitigate these discomforts and postpone these changes and cure these diseases. Properly cared for, the eyes of the elderly are often more efficient and less troublesome than they ever were in youth.

"The young child has the keenest of distance vision and at the same time he can thread a tiny needle or read the finest print held within three or four inches of the eyes. He can do this because he has a lens in his eye as clear as crystal and as elastic as live rubber, so that it adjusts to near or far vision without effort. As he gets older the lens remains transparent, but it becomes more and more inelastic. He still sees perfectly at a distance, but his near point recedes steadily.

"By the time he is forty-five he can just about read fine print. He begins to hold his book farther away than is comfortable, and laughingly says that his eyes are all right but his arms are too short. He requires stronger and stronger light. If he is compelled to use his eyes too much, they get tired—he goes to sleep over his book and blames his dinner; or he gets an eyeache or a headache. There is a long list of aches and pains that follow the forcing of tired eyes.

"To this universal physiological inability of the aging eyes to focus, we give the name 'presbyopia,' or 'old sight.' Ordinarily it begins some time in the early forties, but if one is farsighted or astigmatic, it comes earlier. If one is nearsighted it may not come at all. The eyes of the farmer, or the sailor, or laborer, with little near work to do, may function efficiently long after forty; while ill health or overwork brings it on much earlier.

"But sooner or later most of us have to wear convex glasses which 'magnify' the print and bring it 'nearer' and, in doing so, make near vision sharp, without fatigue. If one is farsighted or astigmatic, the presbyopic correction must be added to that of the distance. There are many persons, especially ladies, who are quite determined that so long as they show no other indication of advancing age they are certainly not going to admit it by wearing glasses. Each year sees a new crop of lotions, drops, tonics, and reading lamps advertised as substitutes for glasses, which are sold to these people.

"One of the great compensations for the onset of 'old sight' is that it results or should result in a complete and careful examination of the eyes, perhaps the first the patient has ever had. There should be a lot more to it than the mere examination for glasses, for the list of diseases that commonly occur in aging eyes is a rather long one. Some of them are rare and some of them very common; some are trivial and self-limited, others are painful and tend to get worse. Some of them threaten sight alone, while a few threaten life itself.

"There is no argument that applies to the annual physical examination of the body which does not apply with equal force to the eyes. The only person who is competent to make this kind of an examination is the eye physician. He has been trained to know and treat diseases whether they involve the eyes alone or the body behind the eyes. His work overlaps on many other specialties. He must have a knowledge of eugenics, pediatrics, neurology, and general medicine. He must always have in mind syphilis, tuberculosis, the toxemias, and the focal infections, and even the various tumors.

"When the sight begins to fail the thing that the average adult dreads more than anything is cataract. He has seen it among his elders, and fears the impairment of vision and perhaps an unsuccessful operation at the end. Many people are as depressed about cataracts as they would be about cancer. And yet in many cases it is not such a terrible thing. It is not necessarily conspicuous and, unless complicated in some way, it is never painful. It occurs in many forms, some due to disease like diabetes or to accident; but for the most part it is the result of perfectly natural senile opacities in the crystalline lens. One of the first things to arouse the physician's suspicion is that, in the beginning, the lens, while still perfectly transparent, swells and makes the patient nearsighted. He often finds that he can again read without glasses, and is very proud of his so-called 'second sight.'

"Perhaps the most serious of eye diseases which threaten people as they grow older is glaucoma. While it is not nearly so common as cataract, it is much more difficult to recognize in its beginning, and it often results in complete blindness in spite of the most careful treatment.

"A careful routine examination of the eyes by one who knows how often reveals unsuspected conditions, like Bright's disease, diabetes, brain tumor, or locomotor ataxia, while there is still time to do something about them—before sight has been irretrievably damaged or the possibility of recovery gone forever."

There is always a certain amount of communicable disease lurking in a community; thus disaster conditions such as recently occurred in the midwestern flooded area throw the door wide open for its spread.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

WILLIAM W. ROBLEE.....President
CHARLES A. DUKES.....President-Elect
LOWELL S. GOIN.....Speaker
KARL L. SCHAUPP.....Council Chairman
GEORGE H. KRESS.....Secretary-Treasurer

HOUSE OF DELEGATES MINUTES*

Minutes of the Thirty-Fifth Annual Session of the House of Delegates of the California Medical Association

Held at Hotel Huntington, Pasadena, California, Monday, May 9, 1938, and Wednesday, May 11, 1938

FIRST MEETING

Monday, May 9, 1938

1. **Call to Order.**—The opening meeting of the House of Delegates of the California Medical Association was called to order by Speaker Lowell S. Goin of Los Angeles, in the Ballroom of Hotel Huntington, Pasadena, California, at 8:30 p. m., Monday, May 9, 1938.

Secretary Warnshuis stated that he held signed attendance slips of delegates, and on motion of Eric Larson of Los Angeles, seconded by Edward Pallette, the signed slips constituted the roll call of the House.

* * *

2. **Announcement of Personnel of Reference Committees.**—The Speaker announced the appointment of the following reference committees: *Credentials Committee*, S. J. McClendon of San Diego (chairman), Frank R. Makinson of Alameda, D. T. Caruso of Los Angeles. *Committee on Reports of Officers and Standing and Special Committees*—Dewey R. Powell of Stockton (chairman), Jacob Geiger of San Francisco, Bon O. Adams of Riverside. *Committee on Report of Council and Secretary-Treasurer*—George G. Reinle of Oakland (chairman), Elbridge Best of San Francisco, E. Vincent Askey of Los Angeles. *Committee on Resolutions, New and Miscellaneous Business, and Amendments to the Constitution and By-Laws*—Eric Larson of Los Angeles (chairman), Alson R. Kilgore of San Francisco, Frank MacDonald of Sacramento.

* * *

3. **Address of President Howard Morrow.**—President Howard Morrow then addressed the House, discussing the venereal disease program, the Relief Administration's Farm Security Program, and the completed Medical-Economic Survey. . . .

Action Taken.—Speaker Goin referred the address of the President to Reference Committee No. 2.†

* * *

4. **Report of the Council.**—Chairman Morton R. Gibbons stated that, in accordance with the Constitution and By-Laws of this Association, the Council submits the following as its annual report to the House of Delegates.

The Council has caused the minutes of its many meetings to be published in several issues of the Association's official journal. The Council, therefore, tenders this report in abbreviated form and respectfully refers our delegates to the recorded minutes for specific details. The House will be informed on other counts of business by special committees appointed by the Council for dealing with such subjects. Meetings: The Council held six regular meetings and two special meetings. Minutes of these meetings and the actions recorded are available to reference committees and to the delegates during this session.

ASSOCIATION AFFAIRS.

The Council respectfully directs the attention of the delegates to the following major affairs of the Association. Detailed particulars can be secured from the Council's official minutes.

(a) *Basic Science Law.*—Existing conditions did not justify placing such an initiative on the ballot. The special committee is continued.

(b) *County Hospital Administration.*—The many important problems in this connection have received careful study and consideration by a special committee. This committee is working on a county hospital policy which will be applicable to all counties of the state. The many problems encountered required the appointment of two additional special committees. The Council feels that this issue is of utmost importance to the profession and that these committees should be continued.

(c) *Dog Pound Initiative.*—The important subject, related to medical research, has been given most careful study.

(d) *Hospital Insurance.*—The policy established by the House of Delegates has been observed. The Committee on Public Relations has reviewed proposed plans and the Council has approved three plans:

1. Insurance Association of Approved Hospitals.
2. Associated Hospital Service of Southern California.
3. The Inter-Coast Hospitalization Insurance Association.

(e) *Postgraduate Education.*—The Council has applied the instructions of the delegates. The committee will present a detailed report.

(f) *Venereal Disease Control.*—The Council has cooperated with the State Department of Public Health. President Morrow and a special committee will present a complete report.

(g) *Farm Bureaus and Supervisors' Associations.*—Contact has been established with these organizations upon matters of mutual interest. Two Council committees are now engaged in conferences.

(h) *Pacific Coast Conference.*—The Council initiated and sponsored this conference. Representatives attended from Washington and Oregon.

(i) *Allied Organizations.*—The Council contemplates a fall conference for the discussion of mutual interests. Details are being discussed with hospitals, nurses, druggists and allied groups.

(j) *Malpractice Insurance.*—This vital problem has been the constant concern of the Council. A special committee will report and Mr. Peart has been requested to address you on this subject.

(k) *County Secretaries' Conference.*—This was held in October and was of great value to the county societies and to your officers. It is proposed to hold a yearly meeting.

(l) *Standing Committees.*—The Council has rendered all possible assistance to the Association's standing committees. They are all rendering individual reports.

(m) *Miscellaneous Matters Arising in the Association.* Miscellaneous matters in which the Association was concerned and had Council consideration have been numerous.

* Secretary's Note.—The following is an abstracted digest of the stenographic record of both meetings of the House of Delegates. The official record, in complete detail, is on file in the Secretary's office for further consultation and information.—F. C. Warnshuis.

† Reference Committee No. 2 is the Committee on Reports of Officers, Standing and Special Committees.

(n) *The Economic Survey.*—In compliance with the instructions of the House of Delegates the Council received the report and complied with the federal and state requirements to conclude this Association project.

(o) *Legal Service.*—The Council provided legal counsel service where the Council determined that Association interest deserved intervention.

(p) *Golden Gate International Exposition.*—In joint activity with the American Medical Association the Council has, through a special committee, exercised advisory direction.

THE EXECUTIVE COMMITTEE.

The Executive Committee has held four meetings in the past year. It has supervised the application of the policies of the House of Delegates and the work of standing committees. It has interested itself and given attention to minor matters and to business affairs of the Association. A digest of the meetings has been published.

ADMINISTRATION.

The annual reports of the Secretary-Treasurer and the Auditor convey to you details relating to membership, finances, and the administrative operations conducted through the Association's headquarters, and with which the Council has maintained close contact and supervision.

RECOMMENDATIONS.

The Council submits the following recommendations:

1. The *adoption of clarifying amendments to the disciplinary provisions* of the by-laws as outlined in the appendix of this report. I will read these various recommendations and then turn to the Appendix and read the recommendations in detail.

2. The election of Joseph P. Widney, M.D., to *honorary membership.*

3. That the Association delegates to the 1938 session of the American Medical Association be instructed to introduce the resolution appended to this report: to obtain a *revision and amplification of the principles of medical ethics.*

4. That this House of Delegates declare it to be a policy to be observed by county societies and by members that there be *no sponsorship, endorsement, promotion, or operation of any plan or plans, method or methods, designed to provide or render medical care or services to communities, organizations, industry, or special groups* until such plans and proposals shall have been referred to the Committee on Public Relations, reviewed by that committee, and that committee's findings have been approved by the Council or House of Delegates. The House of Delegates has fixed such a policy with regard to hospital insurance, and the Council believes that a similar plan should be adopted and applied to plans for medical care and service.

5. The Council recommends that the *annual dues for 1939* be fixed at $10 per member.

CONCLUSIONS:

Again the Council invites your attention to the unselfish devotion to duty of county officers and committeemen. No individual has been asked to be relieved of any assignment without cause. Committee work has entailed hardships on committeemen, yet all tasks have been faithfully performed. They, one and all, deserve your thanks. CALIFORNIA AND WESTERN MEDICINE continues to be the outstanding state journal of the country and your editor the most interested and valuable worker for this Association. The General Counsel and his associates have been most active in your behalf. A vast amount of work and detail and personal service with which few of you are acquainted come from his office. The office of the Association has carried on your work smoothly and efficiently. The Secretary-Treasurer and his staff are efficient, prompt, and effective. In fact, your Council repeats, that all of your appointees deserve the appreciation and thanks of the California Medical Association. Permit us to refer now to specific recommendations.

* * *

Amendment to By-Laws.—First, is an amendment to Section 3, Subsection A, Paragraph 6, Chapter 2, of the By-Laws:

Resolved, That Section 3, Subsection A, Paragraph 6, Chapter 2, of the By-Laws of this Association, California Medical Association, be and is hereby amended as follows:

By striking out the second paragraph of said paragraph 6 and *inserting in lieu thereof the following*:

"Either the Council or the Executive Committee of the California Medical Association, whenever it shall come to the attention of either thereof that a disciplinary proceeding is pending before any component county society, may of its own motion, and shall, upon the request of such component county society or of the member or members thereof the subject of any such disciplinary proceeding, appoint a referee who may, but need not be, a member of the California Medical Association, and shall cause the Secretary of the California Medical Association to notify the secretary of such component county society of such appointment. The referee so appointed shall preside at the hearing of said charges and shall make all decisions concerning the admission or rejection of testimony or other evidence and procedure. The referee shall not, however, have any voice nor participate in any manner in the determination by the Board of Directors of the disposition of the charges. During the hearing the referee shall perform all duties normally performed by the presiding officer of the Board of Directors."

* * *

Amendment to By-Laws.—Amendment to Section 3, Subsection 8, Paragraph 7, of Chapter 2 of the By-Laws.

Resolved, That Section 3, Subsection 8, Paragraph 7 of Chapter 2 of the By-Laws of this Association, California Medical Association, be and hereby is amended as follows:

By striking out all of said paragraph 7, reading as follows:

"(7) *Record of Proceedings: Shorthand Reporter Discretionary; Duty of Secretary to Preserve Board Records; Right of Accused to Copy.*—The secretary shall preserve the original of said charges with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, the original notice of the time and place set for the hearing with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, and the original of the answer filed by any member accused if an answer be filed. At the hearing, the Board of Directors may, in its discretion, and at the expense of the Society, employ a competent shorthand reporter to record and transcribe into typewriting testimony adduced on behalf of the accuser and the accused. If the Board shall decide not to employ a reporter, then the secretary of the Society shall be present and shall keep and prepare a summary of all testimony adduced. The original charges with certificate of service thereof, the original notice of time and place for hearing with certificate of service thereof, the answer or answers, may be filed, if any be filed, all documentary evidence introduced at the hearing, all typewritten transcript of the testimony or the secretary's typewritten summary, and the written decision of the Board of Directors shall constitute the record of the entire proceedings. The secretary shall, upon receipt of a sum sufficient to defray the cost thereof, cause a copy of such record to be transcribed and furnished to the accused. The secretary shall keep such record and, in the event of an appeal to the Council of this Association, shall, upon the request of its secretary, transfer said record to the Council."

And by inserting in lieu thereof the following:

"(7) *Record of Proceedings; Shorthand Reporter; Duty of Secretary to Preserve Board Records; Right of Accused to Copy.*—The secretary shall preserve the original of said charges with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, the original notice of the time and place set for the hearing with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, and the original of the answer filed by any member accused if an answer be filed. At the hearing the Board of Directors shall, at the expense of the Society, employ a competent shorthand reporter to record and transcribe into typewriting testimony adduced on behalf of the accuser and the accused, and all rulings made. The original charges with certificate of service thereof, the original notice of time and place for hearing with certificate of service thereof, the answer or answers, if any be filed, all documentary evidence introduced at the hearing, the typewritten transcript of the testimony and the written decision of the Board of Directors shall constitute the record of the entire proceedings. The secretary shall, upon receipt from the accused of a sum sufficient to defray the cost thereof, cause a copy or copies of such record to be transcribed, certified, and furnished to the accused."

Amendment to By-Laws.—Amendment to Section 4 of Chapter 2 of the By-Laws.

Resolved, That Section 4 of Chapter 2 of the By-Laws of this Association, California Medical Association, be and is hereby amended as follows, *by striking out* all of said Section 4, reading as follows:

"Section 4. *Procedure for Appeal to Council.*—A member of a component county society censured, suspended, or expelled by his county society may appeal from the action of such component county society to the Council of this Association within the period of two months succeeding the date of such censure, suspension, or expulsion. Appeals shall be in writing and be filed within the said period of two months in the office of the secretary of this Association. Upon the filing of an appeal the secretary shall present it to the first subsequent meeting of the Executive Committee or the Council. Appeals shall be heard by the Council only after reasonable notice of not less than ten (10) days, in writing, of the time and place of the hearing of the appeal has been given to the appellant member and the president and secretary of the component county society as provided in Section 3 hereof."

And by inserting in lieu thereof the following:

"Section 4. *Procedure for Appeal to Council.*—A member of a component county society censured, suspended, or expelled by his county society may appeal from the action of such component county society to the Council of this Association within the period of two months succeeding the date of such censure, suspension, or expulsion. Appeals shall be in writing and be filed within the said period of two months in the office of the secretary of this Association. Said appeal shall be accompanied by a copy of the record of the entire proceedings before the component county society, duly certified by its secretary, provided the chairman of the Council may, in his discretion, extend the time of the appellant to file said record. Upon the filing of an appeal the secretary shall present it to the first subsequent meeting of the Executive Committee of the Council. Appeals shall be heard by the Council only after reasonable notice of not less than ten (10) days, in writing, of the time and place of the hearing of the appeal has been given to the appellant member and the president and secretary of the component county society as provided in Section 3 hereof."

* * *

Amendment to By-Laws.—An amendment to Section 20, Subsection 2 of Chapter 5 of the By-Laws.

Resolved, That Subsection (a) of Section 20 of Chapter V of the By-Laws of this Association be and is hereby amended by inserting after the phrase "the Committee on Postgraduate Activities," and before the phrase "and the President" in the first paragraph of said subsection, the following: "The Committee on Medical Defense."

* * *

Resolution.—This is a resolution which is provided for in the recommendation of the Council looking toward an alteration improvement in the Code of Medical Ethics of the American Medical Association.

WHEREAS, The Principles of Medical Ethics is the foundation of professional conduct for physicians; and

WHEREAS, Changing times alter tendencies toward interpretation of all ethical rules, although the nature of ethics remains unchangeable; and

WHEREAS, A careful study of the Principles of Medical Ethics makes it apparent that there exists a pressing need for clarification, codification, and amplification of these tested and time-honored rules of conduct; therefore be it

Resolved, That this House of Delegates shall, and hereby does, direct and instruct its delegates to the American Medical Association to prepare and introduce on behalf of the California Medical Association *the resolution attached hereto* calling for the appointment of a special committee to attempt the redrafting, codification, and amplification of the Principles of Medical Ethics, and directing the said committee to report to the House of Delegates of the American Medical Association at its annual session of 1939.

* * *

Resolution:

WHEREAS, The House of Delegates of the California Medical Association has ascertained that, after examination made by the Board of Medical Examiners of the State of California, such boards ascertained the impossibility of verifying credentials of graduates of many foreign medical schools; and

WHEREAS, Such board further ascertained that in many of such foreign schools matriculants were not required to actually attend the same percentage of courses for which they were given credit; and

WHEREAS, Such board further found that graduates of foreign schools did not in general receive medical education equivalent to that demanded of graduates of medical schools of America; and

WHEREAS, Such board concluded that under all circumstances the people of the State of California would be better protected by demanding of foreign graduates such character of education as would tend to require of such graduates a familiarity with the English language, and particularly with American institutions, hospital procedure and medical training; and

WHEREAS, The Board of Medical Examiners recommended the enactment of legislation which, in its opinion, would tend to secure protection for the people of California; and

WHEREAS, The legislature of this state thereafter enacted a law requiring graduates of foreign medical schools applying for medical licenses in this state to (*a*) produce a diploma showing graduation after a resident course from a foreign medical school, (*b*) show that they have been admitted to practice medicine and surgery in the country wherein such foreign medical school is located, and that they (*c*) thereafter completed medical work of the final year in an approved medical school located in the United States, or (*d*) served one year as a resident intern in an approved American hospital; now, therefore, be it

Resolved, That this Association approve the recommendation of the Board of Medical Examiners and the subsequent legislation enacted by the Legislature of California, and so definitely express its endeavor to secure better medical service for the people of this state.

Action Taken.—Speaker Goin stated that the resolutions concerning amendments to the By-Laws, the Code of Ethics, and the Board of Medical Examiners would be referred to the Committee on Resolutions, Amendments to the Constitution and By-Laws, New and Miscellaneous Business, and that the remainder of the report would be referred to the Committee on the Report of the Council and the Secretary-Treasurer.

* * *

5. **Report of Trustees Of The California Medical Association.**—The Secretary, at the request of the President of the Trustees, presented the following report of the Trustees Of The California Medical Association, stating: "This is the report of the certified auditors of the California Medical Association, giving the balance sheet of the Board of Trustees Of The California Medical Association at the close of 1937."

REPORT OF THE AUDITORS

Cash on deposit, commercial accounts	$ 559.27
Saving Accounts:	
Crocker First Federal Trust Company	2,028.99
Bank of America	933.61
San Francisco Bank	728.05
Marketable Securities:	
United States Government securities at cost—quoted market price at $53,342.51, present value	49,306.25
Other Assets:	
Loans to the California Medical Association	31,000.00
Accrued interest on bonds	1,149.42
Accrued interest on savings accounts	75.65
Making a total of assets	$85,781.24
The liabilities are:	
Members' contribution to the Endowment Fund	$ 200.00
The net worth and contributed surplus received from the California Medical Association	75,000.00
The balance earned surplus of	8,926.30
The net income for the past year of	1,654.00
Making a total of	$85,581.24

Action Taken.—Speaker Goin stated that the report would be referred to the Committee on Report of the Council and the Secretary-Treasurer.

* * *

6. **Report of the Auditing Committee.**—At the request of the Speaker, Secretary Warnshuis, on behalf of the Auditing Committee, presented the following budget for 1939:

PROPOSED BUDGET OF AUDITING COMMITTEE

I. *Estimated Income*

Dues, estimated	$59,000.00
Advertising sales, estimated	26,000.00
Extra Journal subscriptions	700.00
Reprint sales	3,000.00
Earned interest	250.00
Addressograph service	150.00
Miscellaneous income	5,000.00
Making a total estimated income for the next year of	$94,100.00

II. *Estimated Expenditures*

Appropriations approved by the Council for consideration by the House of Delegates:	
Rent	$ 3,425.00
Telephone and telegraph	750.00
Postage	750.00
Stationery and printing	1,000.00
Office supplies	500.00
Office expense	300.00
Salaries—Clerical	9,000.00
Salaries—Secretary-Treasurer and Director of the Department of Public Relations	12,000.00
Travel Expense:	
Officers	200.00
Council	1,200.00
Executive Committee	500.00
Secretary	750.00
Delegates to the American Medical Association	300.00
To the Department of Public Relations	3,000.00
To the Council general expense	200.00
To the expense of Postgraduate Conferences	4,000.00
To the committees' expense; that is, standing committees of the Association	1,000.00
To the Committee on Legislation and Public Policy	3,000.00
Expense of annual meeting	2,000.00
To the Legal Department—Retainer	4,000.00
Extra fees	300.00
Extra legal expense	300.00
Subscriptions to libraries; that is, Lane Library and the Los Angeles County Medical Association Library	1,475.00
To printing California and Western Medicine	25,000.00
To postage, California and Western Medicine	1,200.00
To advertising commissions	4,000.00
To discounts on bills receivable	250.00
The editor's salary	4,000.00
Editor's postage and office expense	150.00
Illustrations	700.00
California and Western Medicine—Sundries	400.00
Addressograph service	150.00
Reprint cost	2,000.00
Woman's Auxiliary	200.00
Unappropriated balance	6,000.00
Making a total of	$94,100.00

No appropriations, however, have been made for the Committee on Qualifying Certificate, or for an adverse initiative expense on the next election ballot or for the expenses entailed for the entertainment of the American Medical Association.

Action Taken.—Speaker Goin stated the report of the Auditing Committee would be referred to the Committee on Report of the Council and the Secretary-Treasurer.

* * *

7. **Reports of Special and Standing Committees.**—Speaker Goin stated the reports of Special and Standing Committees had been published in the Pre-Convention Bulletin and would be referred to the Committee on Reports of Officers, Standing and Special Committees.

* * *

8. **Report of the General Counsel.**—General Counsel Hartley F. Peart then addressed the House at length upon medical-legal problems confronting the profession, particularly stressing malpractice liability.

Action Taken.—The Speaker referred the report of the Legal Counsel to the Committee on Reports of Officers, Special and Standing Committees.

9. **Animal Experimentation.**—P. K. Gilman of San Francisco addressed the House upon the pending initiative that would prohibit controlled animal experimentation.

10. **Unfinished Business.**—Amendment to the Constitution, Article VII, Section 1—Election of Councilors.—Speaker Goin referred the proposed amendment to the Committee on Resolutions, New Business, and Amendments to the Constitution and By-Laws.

11. **Introduction of Resolutions.***—(a) *Relationship Between Public and the Medical Profession.* Introduced by Dr. E. Vincent Askey, representing Southern California delegation.

Action Taken.—The Speaker referred resolution (a) to Reference Committee No. 2.†

(b) *New Class of Associate Membership.* Introduced by Dr. Earnest Dozier of Shasta.

Action Taken.—Speaker Goin referred resolution (b) to Reference Committee No. 4.‡

* * *

(c) *Criminal Insane.*—Introduced by Dr. F. E. Toomey of San Diego.

Action Taken.—Speaker Goin referred resolution (c) to Reference Committee No. 4.

* * *

(d) *Place of Annual Sessions, Del Monte.*—Introduced by Dr. Edward B. Dewey of Los Angeles.

Action Taken.—Speaker Goin referred resolution (d) to Reference Committee No. 4.

* * *

(e) *Name of Section on Industrial Medicine and Surgery.*—Introduced by Dr. George H. Sanderson of Stockton.

Action Taken.—Speaker Goin referred resolution (e) to Reference Committee No. 4.

* * *

(f) *Study of Fees in Contract Practice.*—Introduced by Dr. William R. Molony, Sr., of Los Angeles.

Action Taken.—With the consent of the House, since the text of the exact resolution was not available, the Speaker referred resolution (f) to the Committee on Resolutions, Amendments to the By-Laws, and New and Miscellaneous Business, without having first been read in full to the House.

* * *

12. **In Memoriam.**—At the request of the Speaker, the House rose in tribute to the late members of the Association who had died during the past year.

* * *

13. **Approval of Minutes.**—The Speaker of the House, the Chairman of the Council, and the Secretary were authorized to edit the minutes of the House of Delegates.

* * *

14. **Recess.**—After announcement of the place of the meetings of the various Reference Committees, the Speaker declared the House in recess until 8 p. m. Wednesday, May 11, 1938.

* * *

SECOND MEETING

Wednesday, May 11, 1938

1. **Call to Order.**—The meeting was called to order by Speaker Goin at 8:15 p. m. Dr. S. J. McClendon, Chairman of the Committee on Credentials, made a final report and recommended that 151 delegates constitute the roll call in the House for this session. This motion was duly supported and carried.

* * *

2. **Place of Next Annual Session.**—The Secretary reported that the Council had recommended that the next annual session be held in Del Monte in 1939, time to be fixed by the Council. Upon motion duly made and supported, this action was approved.

* * *

3. **Election of Officers:**

(a) *President-Elect.*—Dr. George G. Reinle of Oakland placed a nomination for the office of president-elect in the name of Charles Alfred Dukes of Alameda. There being no other nominations, Doctor McClendon moved, and supported by Doctor Shepherd, that the Secretary cast a ballot of the House for Doctor Dukes. The Secretary so cast. The Speaker then declared Charles A. Dukes duly elected to the office of president-elect.

(b) *Speaker.*—Doctor Allison of Los Angeles nominated for speaker, Dr. Lowell S. Goin of Los Angeles. Nomination was supported by several. There being no other nominations, Doctor Remmen of Los Angeles moved that the Secretary cast the ballot of the House for Dr. Lowell

* For convenience of reference, the original resolutions as introduced at the first meeting of the House of Delegates appear in the Reference Committee reports as presented at the Wednesday evening meeting, in order that the action taken by the House thereon may be more easily appreciated.

† Reference Committee No. 2 is Committee on Reports of Officers, Standing and Special Committees.

‡ Reference Committee No. 4 is Committee on Resolutions, Amendments to the Constitution and By-Laws, and New and Miscellaneous Business.

S. Goin. Motion was duly carried, the Secretary did so cast, and the Vice-Speaker declared Dr. Lowell S. Goin elected as speaker of the House for the ensuing year.

(c) *Vice-Speaker.* — Doctor Cushman nominated John Graves for the office of vice-speaker. Nomination was supported by Doctor Nuttall of Los Angeles. There being no further nominations, Doctor Askey of Los Angeles, supported by Doctor Larson of Los Angeles, moved that the Secretary cast the ballot of the House for Dr. John Graves. The Secretary did so cast, and the Speaker then declared Doctor Graves elected as vice-speaker of the House for the ensuing year.

(d) *Councilors.*—On motion, duly supported and ballot legally cast, Dr. Calvert L. Emmons was elected to succeed himself as councilor of the First District. Dr. Axcel E. Anderson was elected to succeed himself as councilor of the Fourth District; Dr. O. D. Hamlin as councilor of the Seventh District; and Dr. Harry H. Wilson of Los Angeles to succeed himself as councilor-at-large; and Dr. Phil K. Gilman of San Francisco, as councilor-at-large to succeed Morton R. Gibbons, whose term of office expired and who declined reëlection.

(e) *Delegates to American Medical Association.*—On nominations duly made and supported, and upon ballots duly cast, the following delegates were elected for a term of two years to the American Medical Association: Dr. George G. Reinle of Alameda County, Dr. E. M. Pallette of Los Angeles County, Dr. Robert A. Peers of Colfax, and Dr. William Molony of Los Angeles County.

(f) *Alternates to Delegates to American Medical Association.*—Nominations duly made and supported, and ballots duly cast, the following were elected as alternate delegates to the American Medical Association: Dr. Frank R. Makinson of Alameda County, Dr. W. H. Kiger of Los Angeles County, Dr. F. F. Gundrum of Sacramento, and Dr. John C. Ruddock of Los Angeles.

* * *

4. **Nominations and Confirmation of Appointments to Standing Committees.**—Secretary Warnshuis reported the following appointments by the Council for membership on standing committees of the Association, and upon motion and ballot duly cast these appointment were confirmed:

Committee on Associated Societies and Technical Groups —Dr. Edwin L. Bruck, term expiring, reappointed.

Committee on Health and Public Instruction—Dr. Fred B. Clark, Long Beach, term expiring, reappointed.

Committee on Hospitals, Dispensaries, and Clinics—Dr. George Dawson, Napa, term expiring, reappointed.

Committee on History and Obituaries—Dr. Frank R. Makinson, Oakland, term expiring, reappointed.

Committee on Industrial Practice—Dr. Morton Gibbons, term expiring, reappointed.

Committee on Medical Defense—Dr. George G. Reinle, Oakland, term expiring, reappointed.

Committee on Medical Economics—Dr. John H. Graves, San Francisco, term expiring, reappointed.

Committee on Medical Education and Medical Institutions—Dr. B. O. Ralston, Los Angeles, term expiring, reappointed.

Committee on Membership and Organization—Dr. E. Vincent Askey, term expiring, Dr. George R. Maner, Los Angeles, appointed to succeed Doctor Askey.

Committee on Postgraduate Activities—Dr. F. E. Clough, San Bernardino, term expiring, reappointed.

Committee on Publications—Dr. Ruggles A. Cushman, Talmage, term expiring, reappointed.

Committee on Public Policy and Legislation—Dr. Junius B. Harris, Sacramento, term expiring, reappointed.

Committee on Scientific Work—Dr. J. Homer Woolsey, Woodland, term expiring, reappointed.

* * *

5. **Presidential Appointments.** — The Secretary announced that President Roblee made the following appointments to the *Cancer Commission*: Orville Meland, A. Herman Zeiler, and Gertrude Moore. On motion duly made and carried, these appointments were confirmed.

6. **Reports of Reference Committees:**

I.

Report of the Committee on the Report of the Council and the Secretary-Treasurer

Dr. George G. Reinle, Oakland, Chairman

(REPORT)

To the Members of the House of Delegates:

Your Committee on Reports of the Council and Secretary-Treasurer submits the following comments on the reports of Council and Secretary-Treasurer, the Editor, the Auditing Committee, Public Relations, and the Trustees Of The California Medical Association.

* * *

Your committee wishes to especially commend the fine manner in which the Council has executed its difficult responsibility during the past year in the performance of the Association duties.

* * *

Your committee notes that the existing conditions made it undesirable to place the proposed *Basic Science Law* on an initiative ballot in November, 1938. Your committee does recommend that a Basic Science Law be pushed to conclusion in the 1940 election if deemed expedient by the Council at that time.

County Hospital Administration.—"The many important problems in this connection have received careful study and consideration by a special committee. This committee is working on a County Hospital policy which will be applicable to all the counties of the state. The many problems encountered required the appointment of two additional special committees. The Council feels that this issue is of utmost importance to the profession of the state and that these committees should be continued."

Your committee recommends adoption of this section of the report.

Dog Pound Initiative.—"This important subject, related to medical research, has been given most careful study."

Your committee notes with gratification that the Council has given this important subject most careful study, and we urge continuous attention to this problem by the Council and each member of this Association.

Hospital Insurance.—"The policy established by the House of Delegates has been observed. The Committee on Public Relations has reviewed proposed plans. The Council approved three plans.

1. Insurance Association of Approved Hospitals.
2. Associated Hospital Service of Southern California.
3. Inter-Coast Hospitalization Insurance Association."

Your committee recommends that this action of the Council be approved.

Postgraduate Education.—"The Council has applied the instructions of the delegates. The committee will present a detailed report."

Your committee has no comment, as the matter will be reported on by another committee.

Venereal Disease Control.—Your committee has no comment, as the matter will be reported on by another committee.

Farm Bureaus and Supervisors' Association.—"Contact has been established with these organizations upon matters of mutual interest. Two Council committees are now engaged in conference."

Your committee notes that attention is being paid to this matter and recommends that this type of activity be encouraged.

Pacific Coast Conferences.—"The Council initiated and sponsored this conference. Representatives attended from Oregon and Washington."

Your committee notes the report of the Pacific Coast Conference of representatives from Oregon, Washington, and California. We recommend that these conferences be continued as deemed wise by the Council.

Allied Organizations.—"The Council contemplates a fall conference for the discussion of mutual interests. Details are being discussed with hospitals, nurses, druggists, and allied groups."

Your committee feels that much good will be derived from a conference of allied groups as contemplated by the Council, and recommends that such a conference be held.

Malpractice Insurance.—"This vital problem has been of constant concern to the Council. A special committee will report, and Mr. Peart has been requested to address you on this subject."

Your committee feels that the Council should give special attention to the study of reducing the incidence of malpractice suits and that the medical defense committee should continue to investigate in conjunction with our legal counsel, with the object in view of having each member of the California Medical Association become a member of the Medical Society of the State of California with the thought that this will in the future be made a qualification for membership.

County Secretaries' Conference.—"This was held in October and was of great value to the county societies. It is proposed to hold one yearly."

Your committee recommends continuance of this policy.

Standing Committees.—"The Council has rendered all possible assistance to the Association's standing committees that are rendering individual reports."

Your committee commends the Council and its efforts, and recommends that they be continued.

California Medical-Economic Survey.—"In compliance with the instructions of the House of Delegates the Council received the report and complied with the federal and state requirements to conclude this Association project."

Your committee notes the report of the Council in regard to the completion of the Economic Survey and recommends to the House of Delegates that this report be accepted as being the final disposition of the matter in compliance with the instructions of the previous sessions of the House of Delegates.

Legal Services.—"The Council provided legal counsel service where the Council determined that Association interests deserved intervention."

Your committee makes no comment on the above as it will be reported on by another committee.

Golden Gate International Exposition.—"In joint activity with the American Medical Association the Council has, through a special committee, exercised advisory direction."

Your committee recommends that this be continued.

Executive Committee.—"The Executive Committee has held four meetings. It has supervised the application of the policies of the House of Delegates and the work of the standing committees. It has interested itself and given attention to minor matters and the business affairs of the Association. A digest of each meeting has been published."

Your committee notes that the Executive Committee has met four times during the interim and we highly recommend this procedure as we feel that frequent meetings of this committee is conducive to the welfare of this Association.

* * *

Recommendation.—"The Council submits the following recommendation: The *election of Joseph P. Widney, M.D., to honorary membership.*"

Your committee recommends the election of Dr. Joseph P. Widney to honorary membership. This suggestion of the Council meets with our hearty approval because of the fact that Doctor Widney is one of the founders of the Los Angeles County Medical Association, Past President of the University of Southern California, an outstanding author, a clergyman of note, and a physician of rare attainments. He has reached the age of ninety-seven years and is still active physically and mentally.

* * *

Recommendation.—"That this House of Delegates declare it to be a policy to be observed by county societies and by members that there be *no sponsorship, endorsement, promotion, or operation of any plan or plans, method or methods designed to provide or render medical care or services to communities, organizations, industry or special groups* until such plans and proposals shall have been referred to the Committee of Public Relations, reviewed by that committee, and that committee's findings and recommendations have been approved by the Council or the House of Delegates. The House of Delegates has fixed such a policy with respect to hospital insurance. The Council believes that similar policy should be adopted and applied to plans for medical care and service."

Your committee recommends adoption of the foregoing.

* * *

Recommendation.—"The Council recommends that the *Annual Dues for 1939* be fixed at $10 per member."

Your committee recommends adoption of the above.

* * *

Conclusions.—Your committee notes that the members of the Council and committees have given of their unselfish devotion to the duties that have been delegated to them and that no individual has asked to be relieved of any assignment without adequate cause and therefore, your committee recommends that the House of Delegates acknowledge their efforts in behalf of organized medicine.

(Motion to adopt as a whole.)

* * *

Report of the Secretary-Treasurer to House of Delegates.—Your committee notes with interest and approval the Secretary-Treasurer's *report on membership,* especially noting that we have gained approximately two members for every one lost, either by delinquency or death. We feel that this is due in great measure to the program of visits to the county associations by general officers of the Association and the councilor of each Councilor District. The committee approves this program and recommends that these annual visits to the county societies be continued.

Your committee recommends that this portion of the report be filed.

* * *

Your committee has carefully reviewed the *Financial Statement submitted by the Council through the Association's Certified Accountants,* Ernst & Ernst, and are gratified to report that the year showed a net operating gain of $30,226.44. This has been accomplished by the reduction in administrative costs to the amount of some $15,000, during the last two years. By reason of this showing, the Council was able to recommend to the House of Delegates the reduction of annual dues from $15 to $10 per year.

Your committee recommends the adoption of this section of the report.

* * *

Your committee calls attention to the members that the headquarters of every member is the office of the Association and the Secretary seeks cause to show service. We heartily endorse the Secretary's expression of appreciation for the loyal, devoted services of all the office personnel. They have been faithful to the duties imposed upon them.

* * *

Your committee hereby suggests that the Secretary's recommendation regarding the permanent headquarters for the Association be given consideration by the Council during the coming year.

* * *

Report of Editor.—Your committee is in accord with the policy of the Publication Committee in emphasizing the function of California and Western Medicine as the expression of organized medicine for the benefit of the medical profession of California.

* * *

Report of Auditor.—After careful consideration of the 1938 budget as presented by the Auditing Committee of the Council, your committee hereby approves its adoption.

* * *

Report of Trustees Of The California Medical Association.—Your committee has examined this report and moves its adoption.

* * *

Report of Committee on Public Relations.—Your committee feels that the Public Relations Department is a very important department in the California Medical Association in disseminating information regarding what medicine is doing for the public.

Your committee notes with gratification the many activities that the Public Relations Department has participated in and we recommend that these activities be continued. We recognize the necessity of creating and maintaining the public good will. Also this committee recommends that, during the Annual Convention, the Public Relations Committee control the release of information which is used for the public press.

* * *

Resolution to Establish a Committee Outlining General Policies of Medical Profession:

In view of the far-reaching changes which are taking place, not only in this country, but throughout the world, in social and economic fields which of necessity touch some matters of health, it seems desirable to make clear some of the general principles which the medical profession regards as of fundamental importance for the safeguarding of the public health and the advancement of scientific medicine.

In a spirit of friendly coöperation with the public, with our law-making bodies, and with our executives, the California Medical Association hopes that it may be of assistance in any proposed modifications of legislation pertaining to matters of health and medical practice:

1. The medical profession has been always and is now not only willing but anxious to do its part in caring for those who are unable to pay for private medical service. Every year hundreds of thousands of dollars worth of medical services are given without any compensation whatsoever, in the general hospitals and other clinics of the State, as well as in their private offices by Doctors of Medicine. The medical profession is anxious to encourage any changes which will improve the quality of services to these low income groups, and only asks that any such changes shall be made in coöperation with the State or county medical societies. There should at all times be available to the private citizen a free choice of physician. The relation of physician to patient is such a personal matter that the best type of service can be rendered only when this relationship is observed.

2. High educational standards are of primary importance in any who practice the healing art. The particular method of treatment is a secondary consideration, provided the practitioner is qualified by adequate training in the fundamental sciences before he undertakes to treat a patient by any means whatsoever.

3. The medical profession is one of the few occupations which is continually attempting to work itself out of a job by discovering the causes of disease and attempting to prevent them. This is accomplished through medical research and for this purpose it is necessary to utilize living beings. Only two choices are available, either humans or lower animals. Since it is obviously impracticable and would be highly undesirable to carry out such experiments on humans, the only alternative is to use animals for such experimental purposes. The prevention and successful treatment of such diseases as syphilis, smallpox, diabetes, and many others too numerous to mention, are directly dependent upon such animal experimentation. Intelligent investigation on the part of the public would reveal the fact that such experimentation is carried out under properly controlled and humane conditions.

4. Since the physical and mental health of an individual is vitally influenced by his economic status, the careful consideration of all proposals for change in our basic economic structure is one of the most important duties of the office of any government official. A reference to history reveals that some of the remedies now suggested for our financial difficulties have been tried in the past and have failed.

5. In an era of profound change and conflicting emotions, it is essential that the progress of medical science shall not be impeded. Perhaps more important than progress is the preservation of knowledge gained through the years.

Therefore, be it hereby *resolved:* That the House of delegates of the California Medical Association instruct the Council of the California Medical Association to prepare at intervals, statements setting forth in general the attitude of the organized medical profession on matters coming within the purview of the State Legislature or under consideration by the people as a whole under initiative and referendum laws. These statements are to be released as the official attitude of our Association in regard to such matters.

Your committee recommends the adoption of this resolution.

George G. Reinle, *Chairman*
Elbridge J. Best
E. Vincent Askey

* * *

II.

Report of the Committee on Officers, Standing and Special Committees

Dr. Dewey R. Powell, Stockton, Chairman

1. *Report of the President.*—The California Medical Association has been most fortunate in having had as its President a man of the fine caliber of Howard Morrow. In spite of many demands on his time—including such important responsibilities as Professor of Dermatology at the University of California Medical School and President of the California State Board of Health, President Morrow has attended every meeting of the Council and Executive Committee and visited eleven county societies. The members of this Association should heed President Morrow's timely warning to carefully consider the motives as well as the soundness of the investigations and conclusions of the sociological experts who would presume to remedy all the existing evils of our social system, and revolutionize the practice of medicine. The President emphasizes the importance of the profession becoming proficient in the diagnosis and treatment of venereal diseases if we are to prevent the taking over of this large and important field by governmental agencies and institutions.

The committee recommends adoption of the report of the President.

2. *Report of the President-Elect.*—The President-Elect, W. W. Roblee, has fulfilled his responsibilities as President-Elect with the same efficiency and thoroughness that he showed as Speaker of the House and member of the Council. We may look forward with absolute confidence to the maintenance of the finest tradition of our profession during the coming year under his leadership.

This committee recommends the adoption of the report of the President-Elect.

3. *Report of the Speaker of the House of Delegates.*—The members of the House of Delegates keenly appreciate the efficient and gracious manner with which Speaker Goin has presided over its meetings. He has also attended every meeting of the Council and Executive Committee and visited many county societies, and fulfilled every duty of his office with his usual thoroughness.

This committee recommends adoption of the report of the Speaker of the House of Delegates.

4. *Report of the Legal Department.*—An unusual number of important legal matters have come before the Association this past year. The Legislature of 1937 enacted the Business and Professions Code. Several sections of which are in effect, a legislative declaration of the public policy which forbids corporations to practice by any means the profession of medicine and surgery.

The legal department has spent much time in the consideration of the legal problems arising in connection with the study of county hospitals; with the legal points involved in the proposed basic science initiative; and in the revision of the By-Laws of the Los Angeles County Medical Association, our largest component county society.

The legal department has prepared many informative and interesting articles for the "Medical Jurisprudence" section of California and Western Medicine, and a proposed Physician's Handbook containing these articles and other valuable information on medical legal problems is in the process of preparation.

Special thought was given during the past year to the study of malpractice insurance and the following important facts seem to be well established:

1. Claims and suits are increasing.

2. The applicable law has broken down in the shifting of the burden of proof to the defendant and the weakening of the bar of the Statute of Limitations.

3. Insurance protection against this risk is more costly.

4. Fewer insurance companies are writing this business.
5. The costs of defense are increasing.

This committee particularly emphasizes the warning of the legal department that every member of this Association engaged in practice should have adequate malpractice insurance protection, and directs your attention to the recommendation that this insurance be obtained in a domestic company, if possible, and if additional coverage is desired, that it be obtained from a reputable broker authorized to write the broad form policy of Lloyd's of London.

The attention of the members of the California Medical Association is directed to the Medical Society of the State of California, an unincorporated association defraying the cost of a personal attorney to such members as desire it who carry at least $5,000 insurance. Additional memberships in this Medical Society of the State of California should be secured to enable it to be of real stabilizing assistance to the insurance companies still doing this business. If continued losses force the remaining carriers from this field the only alternative is formation of an insurance corporation which would mean many legal and financial problems. The recommendation is made that the statutes dealing with expert testimony be carefully revised and that the attention of the Code Commission be directed to changes which would doubtless receive the attention of the Bar and numerous other professional groups and supply trial courts with qualified experts for their direct guidance.

In addition to these more important legal problems just summarized numerous other problems have arisen and legal opinions given. The members of the California Medical Association fully appreciate the importance of its legal department and expresses its appreciation to Mr. Hartley Peart, Hubert T. Morrow, and their associates, for their efficient and gracious coöperation.

This committee recommends adoption of the report of the Legal Department.

5. *Reports of District Councilors and Councilors-at-Large.*—The reports of the District Councilors and Councilors-at-Large give ample evidence that these men have fulfilled their respective duties. The members of the California Medical Association express their keen appreciation of the unselfish service rendered this Association by these councilors.

This committee recommends the adoption of the reports of district councilors and councilors-at-large.

6. *Report of the Executive Committee.*—The Executive Committee of the Council has met monthly during months for which Council meetings were not scheduled. Nine officers and councilors contributed much of their time and judgment in supervising the Association affairs. The Executive Committee has served the Association well.

This committee recommends adoption of the report of the Executive Committee.

7. *Report of Committee on Associated Societies and Technical Groups.*—The Committee on Associated Societies and Technical Groups has done much work contacting dentists, druggists, and other groups. A comprehensive plan has been evolved through group leaders whereby a large number of patients and voters can be quickly contacted in support of legislative measures that our State Association recommends. This Committee has coöperated very closely with the Woman's Auxiliary, whose help is so greatly appreciated and so valuable for our Association.

This committee recommends adoption of the report of the Committee on Associated Societies and Technical Groups.

8. *Report of the Committee on Health and Public Instruction.*—The Committee on Health and Public Instruction directs the attention of the members of this Association to the woeful lack of interest on the part of county society members in any program of public education. They recommend that the House of Delegates direct each county unit to sponsor two or more public meetings each year under the direction of a special local committee charged with this duty. They also recommend that a speakers' group be enrolled and a list of such available speakers and their subjects be maintained by the State Secretary so that they might be assigned to address meetings in their vicinities.

They also recommend that county or local health officers be requested to take suitable steps to sponsor and support public meetings for the purpose of public health education.

This committee recommends that each county unit appoint a special committee to include, wherever possible, the county health officer, or specifically delegate to an existing committee, this important problem of conveying to the public authoritative and scientific health information. We further recommend that this local committee maintain close contact with the State Committee and the Secretary's office so that they may fully avail themselves of accumulative experience in that field and have available the most recent list of speakers and subjects.

This committee recommends adoption of the Report of the Committee on Health and Public Instruction as amended.

9. *A Resolution Introduced by Dr. Vincent Askey* representing a committee from a caucus of Southern California delegates presented a summary of some of the most important problems arising in the *relationship between the public and the medical profession.* It concludes with the resolution that the House of Delegates instruct the Council of the California Medical Association to prepare at intervals, statements setting forth, in general, the attitude of the organized medical profession on matters coming within the purview of the State Legislature or under consideration by the people as a whole under initiative and referendum laws. These statements are to be released as the official attitude of our Association in regard to such matters.

This committee feels that this resolution is most timely in directing the attention of the Council to the necessity of the presentation to the public of the attitude of organized medicine on matters of legislation and public health. Organized medicine too often is put before the public in a purely defensive or apparently obstructive attitude. We should counteract this impression by presenting positive facts and information to more properly present the constructive attitude of our profession in this important matter of conveying to the public correct scientific and medical information.

The committee recommends the adoption of the resolution presented by the Southern California caucus as amended by this committeee.

10. *Report of the Committee on History and Obituaries.* The Committee on History and Obituaries recommends that the Council enlarge the committee so that the State might be divided into districts so that one member of the committee would be responsible for obtaining the history and the proper death notices and obituaries for his particular district.

This committee recommends that the question of getting this data be left to the component county societies in cooperation with the present standing Committee on History and Obituaries. If necessary, the secretaries of the component societies would have special committees appointed for this purpose. Each year the list of those of our colleagues that have passed on brings a keen sense of personal loss as well as an appreciation of the loss sustained by our entire profession and the respective communities in which our departed confreres carried on their activities. The active work of these men is done but the memory and the appreciation will live on.

This committee recommends adoption of the report of the Committee on History and Obituaries as amended.

11. *Report of the Committee on Hospitals, Dispensaries, and Clinics.*—The Committee on Hospitals, Dispensaries, and Clinics has been largely inactive this year, most of the questions arising before it having been considered by the Public Relations Committee.

This committee recommends adoption of the report of the Committee on Hospitals, Dispensaries and Clinics.

12. *Report of the Committee on Industrial Practice.*—The Committee on Industrial Practice calls attention to the decision of the Supreme Court of California which establishes the fact that California Industrial Accident Commission has jurisdiction over all the injuries arising in this State even though the contract of employment was made in another state and even though the employee is only temporarily assigned to work in this State. This obviates any possibility of physicians being required to proceed in other states for compensation for services performed in this State to an employee injured in this State.

This committee recommends adoption of the report of the Committee on Industrial Practice.

13. *Report of the Committee on Medical Defense.*—The Committee on Medical Defense has done a great deal of work in connection with the legal department of our Association in clarifying malpractice insurance policies being offered to the profession in California. Through their efforts the many types of policy offered by surplus line brokers representing Lloyd's of London have now been reduced to one type of policy meeting the full approval of our legal advisers.

The Committee on Medical Defense recommends strongly that consideration be given to the study of causes of malpractice claims as outlined by the Medical Defense Committee of the Los Angeles Medical Society. It is further recommended that there be appointed in every county society a Medical Defense Committee whose duties it shall be whenever a malpractice claim is made or threatened, to investigate the case and advise as to its handling in coöperation with all concerned. The committee recommends that every member of the California Medical Association should be a member of the Medical Society of the State of California, thus assuring full protection of each member's personal interests and strengthening the protection afforded through the insurance carrier.

This committee recommends adoption of the report of the Committee on Medical Defense.

14. *Report of the Committee on Medical Economics.*—The Committee on Medical Economics has been inactive during the year, its problems being referred to the Committee on Public Relations.

This committee recommends adoption of the report of the Committee on Medical Economics.

15. *Report of the Committee on Medical Education and Medical Institutions.*—The Committee on Medical Education and Medical Institutions has considered all matters referred to it by the Association and has coöperated with the Committee on Postgraduate Activities and with the four medical schools in California.

It is the sense of this committee that the matter of postgraduate instruction of the members of the California State Medical Association is of primary importance, and the Committee on Medical Education and Medical Institutions should urge the medical schools of the state to increase the facilities for such instruction accordingly.

This committee recommends adoption of the report of the Committee on Medical Education and Medical Institutions.

16. *Committee on Membership and Organization.*—The attention of the Committee on Membership and Organization has been directed to encouraging the efforts of the various county societies in the continued program of recruiting members. The committee suggests that each county unit make a survey showing the total number of medical men in the county, particularly listing those eligible for membership who do not now belong to our organization. With this knowledge available, it is possible to put on an active campaign to induce these men to join and secure thereby a stronger alliance among all doctors of medicine.

This committee recommends adoption of the report of the Committee on Membership and Organization.

17. *Report of the Committee on Postgraduate Activities.* The Committee on Postgraduate Activities and the Council of the California Medical Association recognize the obligation of this Association to afford opportunity to its members to engage in continuous educational study with a minimum of time and expense. The committee has formulated and prepared a five-year program for graduate study. This program is in the process of revision, as experience shows the need for change and is intended to afford an opportunity to the members of this Association to remain abreast of scientific progress and to apply it in their daily practice.

This committee recommends that the publication of the five-year program as revised be continued.

This committee concurs in the recommendation of Chairman Ruddock that an advisory committee be appointed by the Council, such committee to meet with the Committee on Postgraduate Study at least once a year to properly revise and supplement the program of the Association.

This committee recommends the adoption of the report of the Committee on Postgraduate Activities.

18. *Report of the Committee on Publications.* — The Committee on Publications is in full accord with the physical arrangements of the contents of the official journal and its editorial policy and projected plans.

This committee wishes to emphasize the report of the Committee on Publications in that its comments on the JOURNAL are of particular importance to our membership as to the quality of the articles and the service it renders to medicine. Our official journal has reached an outstanding position in the field of state and regional medical journals, and is giving our membership timely information on economic and political matters as well as scientific information.

This committee recommends the adoption of the report of the Committee on Publications.

19. *The Committee on Scientific Work.*—The Committee on Scientific Work has been responsible for the scientific program for this sixty-seventh annual session. The high quality of the scientific papers and the outstanding personalities of the visiting speakers have contributed to making this a most helpful and instructive session.

The committee renews its recommendations that the House of Delegates give careful consideration to the advisability of selecting places for the holding of annual sessions that provide adequate accommodations for section meetings and scientific exhibits.

This committee feels that it is very unsatisfactory to members of this Association who have assembled from every portion of the state for their annual session to be unable to attend either a general session or section meeting because of the inadequacy of the seating capacity of the meeting place. It is equally unsatisfactory to members who have gone to considerable time and thought to prepare papers and an actual discourtesy to visiting speakers of eminence who have come as our specially invited guests to be compelled to present their papers under conditions that make it difficult for them to be heard and almost impossible to concentrate on the delivery of such paper. Without any reflection whatever upon the Committee on Arrangements of this or previous conventions, the growing size of our organization makes it imperative that the House of Delegates and its Council give most careful consideration for future needs in regard to adequate meeting place for this organization.

This committee appreciates the time and effort spent by the members of the Association who have provided worth while scientific exhibits and urges that medical schools, institutions, and individuals give more attention to providing such exhibits at future sessions.

This committee recommends the adoption of the report of the Committee on Scientific Work as amended.

20. *Report of the Committee on Animal Experimentation.* The report of the Committee on Animal Experimentation is heartily approved.

This committee wishes to emphasize the importance of the report of the Committee on Animal Experimentation and to urge the entire membership of the Association to assist this committee in combating the insidious influences at work against medical scientific investigation. It also approves the motion of the committee that the House of Delegates authorize and instruct each county society composing the California Medical Association to appoint a special committee whose duty it shall be to enlist the support and arouse the interest of all voters in their communities and by proper education cause them to aid in defeating this initiative. These committees, as organized, shall communicate with the secretary of the California Medical Association and the chairman of the Committee on Animal Experimentation for mutual assistance and coördination of activities.

This committee recommends the adoption of the report of the Committee on Animal Experimentation.

21.—*Report of the Cancer Commission.*—The Cancer Commission has done excellent service in bringing to the practicing physicians of the state a comprehensive knowledge of cancer in order that patients may receive the best care at the earliest opportunity. The Cancer Commission may well be proud of its published reports, which have received deserved compliments from national and international authorities. The Cancer Commission recommends that at the present time it appears feasible in California to organize two types of cancer groups. First, a purely diagnostic group in small hospitals and communities, and secondly, a diagnostic and/or treatment group in hospitals and communities where adequate apparatus and equipment

exists. The establishment of such clinics would undoubtedly supplement and make more effective the comprehensive campaign which has long been conducted by the Cancer Commission in the education of the public as to early diagnosis.

This committee recommends the adoption of the report of the Cancer Commission.

22. Report of the Special Committee on a Qualifying Certificate (Basic Science) Law.—This committee calls the attention of the members of this Association to the tremendous amount of investigation and work that has been done in the study of a basic science law for California. This is a progress report, and a continuing study is being conducted by the Committee on a Qualifying Certificate Law. We call the attention of all members of our Association to the importance of this matter and request that they familiarize themselves with the details of the report. We urge that the Council consummate the work of this committee at the earliest possible time, consistent with the legal and financial problems involved.

This committee recommends the adoption of the report of the Committee on a Qualifying Certificate (Basic Science) Law.

23. Report of the Committee on Syphilis.—The report of the Committee on Syphilis calls attention to the Venereal Disease Act passed by the Legislature of 1937, creating the Bureau of Venereal Diseases within the California State Department of Public Health. The system for reporting cases of venereal disease has been simplified and modernized. The policy concerning admissions to clinics has been laid down and general standards of medical care improved. Educational films have been presented to over fifty audiences, and a number of seminars have been held within county societies and distinguished speakers have been provided for continuing education, both of the profession and of the public.

This committee especially emphasizes the importance of the reporting of cases and the adequate investigation of the sources of infection. We recommend the adoption of the report of the Committee on Syphilis.

Respectfully submitted,

COMMITTEE ON REPORTS OF OFFICERS, STANDING AND SPECIAL COMMITTEES.

Dewey R. Powell, *Chairman*
Bon O. Adams
J. C. Geiger

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III.

Report of the Committee on Resolutions, Amendments to Constitution and By-Laws, New and Miscellaneous Business

Dr. E. Eric Larson, Los Angeles, Chairman

Resolution No. 1.—Introduced by F. E. Toomey, San Diego, and

Relating to study of Sections 1026 and 1026a of the California Penal Code:

WHEREAS, The plea of "not guilty because insane" has potentialities for both good and evil; and

WHEREAS, The term "not guilty because insane" may become obnoxious to the thinking public; and

WHEREAS, The claim of insanity may be abused as an "escape" method; and

WHEREAS, The major burden of opinion in proof of insanity devolves upon members of the medical profession; and

WHEREAS, The proof of sanity or insanity usually depends upon very technical evidence; and

WHEREAS, Adverse public regard affects all members of organized medicine; be it

Resolved, By the California Medical Association that a thorough study of Sections 1026 and 1026a of the California Penal Code be instituted by said Association and that recommendations or criticisms be offered in order that the lay public and organized medicine be justly served.

* * *

Your committee recommends that the following substitute resolution be adopted:

WHEREAS, The present provisions of the California Penal Code relating to the plea of "not guilty by reason of insanity" have proved to be of great value in the administration of justice; and

WHEREAS, Experience has proved that the pertinent sections of the Penal Code require still further improvement in order to provide for more thorough and extended examination and observation as a basis for expert medical opinion; now, therefore, be it

Resolved, That the Council is hereby instructed to appoint a committee from this Association and to invite the California Bar Association to appoint a similar committee in order that, through these committees, the two Associations may jointly study Sections 1026 and 1026a of the California Penal Code and that such changes as may appear desirable may be recommended to the legislature.

* * *

Resolution No. 2.—Introduced by George H. Sanderson for Industrial Medicine and Surgery Section, and

Relating to the change of name of the Section.

WHEREAS, The present name of Industrial Medicine and Surgery Section does not truly represent the field covered or desired to be covered by the Section so named; be it

Resolved, That the name of the Section which has been so designated be changed to that of Traumatic and Orthopedic Surgery Section.

GEORGE H. SANDERSON,
Secretary, Industrial Medicine and Surgery Section.

* * *

Since the present title conforms to the Section Organization of the American Medical Association, your committee recommends that the resolution do not pass at this time.

* * *

Resolution No. 3.—*Relating to instructions of the delegates to the American Medical Association, that they introduce a resolution in that House of Delegates, relating to the revision of the Principles of Medical Ethics:*

WHEREAS, The Principles of Medical Ethics is the foundation of professional conduct for physicians; and

WHEREAS, Changing times alter tendencies toward interpretation of all ethical rules, although the nature of ethics remains unchangeable; and

WHEREAS, A careful study of the Principles of Medical Ethics makes it apparent that there exists a pressing need for clarification, codification, and amplification of these tested and time-honored rules of conduct; therefore be it

Resolved, That this House of Delegates shall, and hereby does, direct and instruct its delegates to the American Medical Association to prepare and introduce on behalf of the California Medical Association *the resolution attached hereto* calling for the appointment of a special committee to attempt the redrafting, codification, and amplification of the Principles of Medical Ethics, and directing the said committee to report to the House of Delegates of the American Medical Association at its annual session of 1939.

* * *

The following resolution, referred to above, is to be introduced by our delegates to the American Medical Association:

WHEREAS, The Principles of Medical Ethics is the foundation of professional conduct for physicians; and

WHEREAS, Changing times alter tendencies toward interpretation of all ethical rules, although the nature of ethics remains unchangeable; and

WHEREAS, A careful study of the Principles of Medical Ethics makes it apparent that there exists a pressing need for clarification, amplification, and codification of these tested and time-honored rules of conduct; therefore be it

Resolved, That the Speaker of the House of Delegates shall appoint a Committee of Five to proceed toward the amplification, clarification, codification, and revision of the Principles of Medical Ethics, directing the said committee to report to this House at its session in 1939.

* * *

In view of the rapid changes which are constantly taking place in the field of medical practice, your committee recognizes the necessity for frequent clarification, amplification, and codification of the ethical principles involved in these newer developments for the guidance and advice of physicians in the practice of medicine.

Your committee whole-heartedly recommends that the above resolution pass.

Resolution No. 4.—Introduced by Dr. Earnest Dozier, on behalf of the Shasta County Medical Society, and

Relating to creation of a new class of associate membership:*

WHEREAS, The internal harmony of the California Medical Association and its component county medical societies, and the affection in which they are held by members, and their consequent position in the public estimation, have long been increasingly impaired by continued agitations for and against investigations, endorsements, and coöperative participation by the California Medical Association, its component county medical societies, and its and their members, of and in political forms of so-called "SOCIAL MEDICINE"; and

WHEREAS, The proponents are largely among those elements of the Association that hold, or are directly interested in, professional positions in the so-called "public service," or in full-time teaching staffs of public institutions, where their principal income is legislatively derived from public taxation; and

WHEREAS, The opponents are largely among those engaged in what is commonly termed "the private practice of medicine," with their principal income derived from fees or salaries privately agreed upon between themselves and those who engage their professional services; and such opponents are unalterably convinced that the principal objective of the Association and its component county medical societies should be devotion, in the future, as in the past, to advances in professional harmony and professional ethics and skill among the members so engaged in the private practice of medicine; and

WHEREAS, It is manifestly neither possible nor desirable to amalgamate the conflicting politico-social views and objectives of said proponents and opponents within the Association and its component county medical societies, and the affection in which they are held by their members, with prejudice to their position in the public estimation; now, therefore, be it

Resolved, By the California Medical Association, that it do, at this time, undertake appropriate changes and modifications in its basic laws, so that there shall be, hereafter, two fundamental divisions within it and within its component county medical societies—one of active membership, with exclusive voice and vote in its and their affairs; the other, associate membership, without such voice and vote. And that active membership, including all officers of the Association and its component county medical societies, shall be accorded only to otherwise acceptable doctors of medicine engaged in private practice of medicine, with their principal incomes derived from fees or salaries privately agreed upon between themselves and those engaging their professional services; and that associate membership shall be open to all other otherwise acceptable doctors of medicine residing in California, and that membership in either division of the Association and its component county medical societies may be changed to the other, upon adequate representations of the principal source of income, such being the essence of division.

* * *

Your committee has devoted much time and earnest thought to this resolution. We are convinced that it is introduced with the best intentions and motives for the preservation of the high standards and qualities of the medical service rendered to the people of California by its private practitioners. However, the proposal to divide the membership of the state and component county societies into two classes—(1) active, including those of its members engaged primarily or exclusively in private practice, and (2) associate, including public health officers, full-time clinical staff members of universities, school physicians, and others not engaged in private practice—would place us in the position of dissolving the semblance of unity now established in organized medicine. The California Medical Association recognizes that changing economic and social conditions require changes in the organization of medical services. It is the purpose of the California Medical Association to approach the problems of maintaining the high standards of medical service to the people of this state. We entertain no doubt whatever that there are those among us who for selfish purposes or in the ill-advised zeal of fanaticism, are willing to sacrifice the standards essential to good medical service and hamper the California Medical Association in its efforts to meet the problems presented to us without breaking down these essential standards.

* Resolution unanimously adopted by the Shasta County Medical Society, May 2, 1938, for introduction at the 1938 convention of the California Medical Association.

The philosophy underlying this resolution may well be taken to heart and assiduously studied. Even though it seems quite drastic in many particulars, its consideration may furnish the stimulus which will lead to a still better unity of thought and action than now exists.

Because your committee feels that the measure proposed in this resolution would not accomplish the intended purpose, we recommend that it do not pass.

* * *

Resolution No. 5.—Resolution submitted by the Council, and

Relating to the investigation and appraisal of credentials of applicants for licensure from foreign countries:

WHEREAS, The House of Delegates of the California Medical Association has ascertained that, after examination made by the Board of Medical Examiners of the State of California, such boards ascertained the impossibility of verifying credentials of graduates of many foreign medical schools; and

WHEREAS, Such board further ascertained that in many of such foreign schools matrieulants were not required to actually attend the same percentage of courses for which they were given credit; and

WHEREAS, Such board further found that graduates of foreign schools did not in general receive medical education equivalent to that demanded of graduates of medical schools of America; and

WHEREAS, Such board concluded that under all circumstances the people of the State of California would be better protected by demanding of foreign graduates such character of education as would tend to require of such graduates a familiarity with the English language, and particularly with American institutions, hospital procedure and medical training; and

WHEREAS, The Board of Medical Examiners recommended the enactment of legislation which, in its opinion, would tend to secure protection for the people of California; and

WHEREAS, The legislature of this state thereafter enacted a law requiring graduates of foreign medical schools applying for medical licenses in this state to (*a*) produce a diploma showing graduation after a resident course from a foreign medical school, (*b*) show that they have been admitted to practice medicine and surgery in the country wherein such foreign medical school is located, and that they (*c*) thereafter completed medical work of the final year in an approved medical school located in the United States, or (*d*) served one year as a resident intern in an approved American hospital; now, therefore, be it

Resolved, That this Association approve the recommendation of the Board of Medical Examiners and the subsequent legislation enacted by the Legislature of California, and so definitely express its endeavor to secure better medical service for the people of this state.

* * *

Your committee recommends that the House of Delegates adopt the following substitute resolution:

WHEREAS, The House of Delegates is informed by the Board of Medical Examiners of the State of California that it has frequently been found impossible to verify the credentials of applicants for licensure from foreign countries and even that many such credentials have been determined definitely to be fraudulent; and

WHEREAS, In many instances graduates of foreign schools have not received training equivalent to that demanded of graduates of American schools; and

WHEREAS, It is in the public interest that the high standards of medical licensure in California be not broken down; now, therefore be it

Resolved, That the Council is instructed to take such steps as it may to secure further strengthening of the Medical Practice Act to the effect that applicants from foreign medical schools be required to meet the same standards of education and training, both premedical and professional, as are required of graduates of American medical schools, and that subject to the principles enunciated above, an applicant from a medical school in a foreign country may be admitted to practice in California on the same basis and under the same conditions as are imposed by that country on graduates of California medical schools who may apply for admission to practice in that country.

* * *

Resolution No. 6.—Presented in the form of letters from the Los Angeles and San Joaquin County Medical Societies, and

Relating to proposed resolution dealing with rebates to Industrial Insurance carriers:

(Copy)

San Joaquin County Medical Society
December 4, 1938.

Dear Doctor:

Your attention is called to the following action taken by the Board of Directors of the San Joaquin County Medical Society, November 30, 1937, at which time the following motion was passed:

"That the Board of Directors of the San Joaquin County Medical Society go on record against accepting any cutting of fees or rebating of the same from the existing Industrial Fee Schedule to any Industrial Accident Insurance Company."

This action was further amplified at a meeting of the San Joaquin County Medical Society held December 2, 1937, when the following motion was passed:

"That the San Joaquin County Medical Society be placed on record as unalterably opposed to fee splitting or reduction of fees or rebating of fees to the Industrial Accident Insurance Company, that a copy of this resolution be mailed to all members of the San Joaquin County Medical Society and the National Automobile Insurance Company, and that any member accepting work from any insurance company, entailing reductions of fees, splitting of fees or rebating of fees, be referred to the Committee on Ethics and Professional Conduct for such disciplinary action as the committee sees fit."

This action of the Board of Directors of the San Joaquin County Medical Society and of the San Joaquin County Medical Society is called to your attention so that you might govern yourself accordingly.

Yours sincerely,
George H. Rohrbacher, M.D.
Secretary.

* * *

(Copy)

Report of Committee on Industrial Contract and Insurance Practice

To the Council of the
Los Angeles County Medical Association.
1925 Wilshire Boulevard,
Los Angeles, California.

Gentlemen:

The resolution of the San Joaquin County Medical Society as to the fees of Industrial Accident work was approved in principle but the language was not acceptable. The committee recommends that the Council of the Los Angeles County Medical Association go on record as opposed to the acceptance by any member of the Association of fees lower than those appearing on the current Industrial Fee Schedule.

The committee further recommends that the Council of the Los Angeles County Medical Association is opposed to the cutting of fees of the current Industrial Accident Fee Schedule or the rebating of same to any insurance company or its agents, and that a copy of this resolution be printed in the Bulletin. The committee also recommends that a copy of this resolution be presented to the House of Delegates of the California Medical Association at the May meeting in the hope that the State Society may go on record as favoring such a resolution and that proper disciplinary action be provided.

Advisory Committee—Francis X. Ammann, T. Sheridan Carey, John Stephens, W. B. Van Cott.

Respectfully submitted,
William R. Molony, *Chairman*
Edwin B. Plimpton
Donald Cass

* * *

Your committee is informed that this matter is already being actively dealt with by a committee of the Council. We recommend that the House of Delegates reaffirm its position by adopting the following resolution:

Resolved, That the House of Delegates of the California Medical Association is unalterably opposed to the cutting of fees under the current Industrial Accident Fee Schedule or of rebating portions of such fees to any insurance company or its agents; and be it further

Resolved, That such cutting of fees or rebating shall render any member subject to disciplinary action as provided by the Constitution.

Resolution No. 7. — Introduced by Edward Dewey, E. Eric Larson, W. H. Daniel, and Ralph B. Eusden of Los Angeles, and

Relating to sessions at Del Monte for the next five years:

Whereas, The present custom of holding the California Medical Association conventions in various localities is the cause of a certain amount of confusion in the selection of the city and the securing of satisfactory accommodations; and

Whereas, Physicians ordinarily will leave their homes to attend a convention, these same physicians find it difficult to free themselves of the responsibilities of practice while at home, thus materially interfering with their attendance at the meetings; and

Whereas, There are few localities in the state which can provide satisfactory accommodations; and

Whereas, Del Monte is centrally located in the state and none of the above objections apply; and

Whereas, The Del Monte Properties Company propose to build an auditorium if we will plan to hold our conventions there for the next five years; now, therefore, be it

Resolved, That this House of Delegates of the California Medical Association recommend to the Council of the California Medical Association that the annual convention be held at Del Monte for five years, beginning in 1939.

* * *

Committee's Comment.—It is apparent that contracts or other obligations would be required of both parties. Furthermore, your committee desires to call attention to the fact that the California Medical Association annual convention is an important asset to the various communities where meetings have been held, and consideration should be given to the matters of policy involved.

Your committee recommends that this resolution be referred to the Council with power to act.

* * *

Proposed Amendments

I. Amendment to Section 20, Subsection (a), of Chapter V of the By-Laws:

Resolved, That Subsection (a) of Section 20 of Chapter V of the By-Laws of this Association be and is hereby amended by inserting after the phrase "the Committee on Postgraduate Activities," and before the phrase "and the President" in the first paragraph of said subsection, the following: "The Committee on Medical Defense."

Your committee suggests that to carry out the intent of this amendment, a companion amendment of paragraph (b) of the same section should be passed at the same time as follows:

Resolved, That Subsection (b) of Section 20 of Chapter V of the By-Laws of this Association be and is hereby amended by inserting after the phrase "the Committee on Postgraduate Activities," and before the phrase "and the Cancer Commission," the following: "the Committee on Medical Defense."

II. Amendments to the By-Laws, proposed by the Council:

Amendments are proposed to Sections 3 and 4 of the Constitution, dealing with disciplinary procedure, as follows:

(a) Amendment to Section 3, Subsection (a), Paragraph (6) of Chapter II of the By-Laws:

Resolved, That Section 3, Subsection (a), Paragraph (6), of Chapter II of the By-Laws of this Association, California Medical Association, be and is hereby amended as follows:

By striking out the second paragraph of said Paragraph (6) and inserting in lieu thereof the following:

"Either the Council or the Executive Committee of the California Medical Association, whenever it shall come to the attention of either thereof that a disciplinary proceeding is pending before any component county society, may of its own motion, and shall, upon the request of such component county society or of the member or members thereof the subject of any such disciplinary proceeding, appoint a referee who may, but need not be, a member of the California Medical Association, and shall cause the Secretary of the California Medical Association to notify the secretary of such component county society of such appointment. The referee so appointed shall preside at the hearing of said charges and shall make all decisions concerning the admission or rejection of testimony or other evidence and procedure. The referee shall not, however, have any voice nor

participate in any manner in the determination by the Board of Directors of the disposition of the charges. During the hearing the referee shall perform all duties normally performed by the presiding officer of the Board of Directors."

(b) **Amendment to Section 3, Subsection (a), Paragraph (7) of Chapter II of the By-Laws:**

Resolved, That Section 3, Subsection (a), Paragraph (7), of Chapter II of the By-Laws of this Association, California Medical Association, be and is hereby amended as follows:

By striking out all of said Paragraph (7), reading as follows:

"(7) *Record of Proceedings; Shorthand Reporter Discretionary; Duty of Secretary to Preserve Board Records; Right of Accused to Copy.*—The secretary shall preserve the original of said charges with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, the original notice of the time and place set for the hearing with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, and the original of the answer filed by any member accused if an answer be filed. At the hearing, the Board of Directors may, in its discretion, and at the expense of the Society, employ a competent shorthand reporter to record and transcribe into typewriting testimony adduced on behalf of the accuser and the accused. If the Board shall decide not to employ a reporter, then the secretary of the Society shall be present and shall keep and prepare a summary of all testimony adduced. The original charges with certificate of service thereof, the original notice of time and place for hearing with certificate of service thereof, the answer or answers, may be filed, if any be filed, all documentary evidence introduced at the hearing, all typewritten transcript of the testimony or the secretary's typewritten summary, and the written decision of the Board of Directors shall constitute the record of the entire proceedings. The secretary shall, upon receipt of a sum sufficient to defray the cost thereof, cause a copy of such record to be transcribed and furnished to the accused. The secretary shall keep such record and, in the event of an appeal to the Council of this Association, shall, upon the request of its secretary, transfer said record to the Council."

And by inserting in lieu thereof the following:

"(7) *Record of Proceedings; Shorthand Reporter; Duty of Secretary to Preserve Board Records; Right of Accused to Copy.*—The secretary shall preserve the original of said charges with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, the original notice of the time and place set for the hearing with a certificate of personal delivery or of mailing of a copy or copies thereof, as the case may be, and the original of the answer filed by any member accused if an answer be filed. At the hearing the Board of Directors shall, at the expense of the Society, employ a competent shorthand reporter to record and transcribe into typewriting testimony adduced on behalf of the accuser and the accused, and all rulings made. The original charges with certificate of service thereof, the original notice of time and place for hearing with certificate of service thereof, the answer or answers, if any be filed, all documentary evidence introduced at the hearing, the typewritten transcript of the testimony and the written decision of the Board of Directors shall constitute the record of the entire proceedings. The secretary shall, upon receipt from the accused of a sum sufficient to defray the cost thereof, cause a copy or copies of such record to be transcribed, certified, and furnished to the accused."

(c) **Amendment to Section 4 of Chapter II of the By-Laws:**

Resolved, That Section 4 of Chapter II of the By-Laws of this Association, California Medical Association, be and is hereby amended as follows:

By striking out all of said Section 4, reading as follows:

"Section 4. *Procedure for Appeal to Council.*—A member of a component county society censured, suspended, or expelled by his county society may appeal from the action of such component county society to the Council of this Association within the period of two months succeeding the date of such censure, suspension, or expulsion. Appeals shall be in writing and be filed within the said period of two months in the office of the secretary of this Association. Upon the filing of an appeal the secretary shall present it to the first subsequent meeting of the Executive Committee or the Council. Appeals shall be heard by the Council only after reasonable notice of not less than ten (10) days, in writing, of the time and place of the hearing of the appeal has been given to the appellant member and the president and secretary of the component county society as provided in Section 3 hereof."

And by inserting in lieu thereof the following:

"Section 4. *Procedure for Appeal to Council.*—A member of a component county society censured, suspended, or expelled by his county society may appeal from the action of such component county society to the Council of this Association within the period of two months succeeding the date of such censure, suspension, or expulsion. Appeals shall be in writing and be filed within the said period of two months in the office of the secretary of this Association. Said appeal shall be accompanied by a copy of the record of the entire proceedings before the component county society, duly certified by its secretary, provided the chairman of the Council may, in his discretion, extend the time of the appellant to file said record. Upon the filing of an appeal the secretary shall present it to the first subsequent meeting of the Executive Committee of the Council. Appeals shall be heard by the Council only after reasonable notice of not less than ten (10) days, in writing, of the time and place of the hearing of the appeal has been given to the appellant member and the president and secretary of the component county society as provided in Section 3 hereof."

Your committee recommends that these amendments be adopted.

* * *

Recommendations to the Council of the California Medical Association

Woman's Auxiliary.—The work and influence of the Woman's Auxiliary to the California Medical Association is becoming constantly of greater value and importance.

Your committee believes that the members of the California Medical Association should be brought and kept in still closer contact with the activities of the Auxiliary.

The suggestion is offered that, in addition to other means of accomplishing this, the work of the Auxiliary might well be presented on the program of a general meeting during the California Medical Association convention.

* * *

Medical Press Bureaus.—It is a notorious and a quite generally accepted axiom that the press as it exists today is subjected to criticism in its general policy of publishing common-interest articles or molding the general opinion of the people on important issues.

Either by wilful neglect or misunderstood forces, articles are published in which there is a gross neglect in stating some of the most important issues involved. For the same reason, magnification of issues considered inimical to our profession are constantly before our eyes.

For these reasons your committee recommends that the Council promote a medical press bureau in each county medical society and at each section of the California Medical Association, whose duty it is to form a closer liaison between the editorial staff and the medical profession by advising with and assisting in the clarification of issues affecting the medical sciences, as they arise, and in items of general interest where scientific clarification may be of importance.

* * *

Amendment to Constitution, Article VII, Section 1, Proposed Last Year, to Be Voted on at This Session.* The resolution proposing the amendment is printed on page 59 of the official program.

Your committee believes that discussion of this proposed amendment can best be carried out absolutely frankly and without obscuring fundamental issues in the language customarily employed in reference committee reports. It is our understanding that the proposal was made as a result of a councilor election in which the House of Delegates over-rode the expressed wishes of the delegates of the district concerned.

The question raised by the proposal is this: Shall district councilors represent their districts only and without responsibility to the House of Delegates as a whole, or shall the House of Delegates reserve for itself the right of final approval of election of members of its Council?

This is a matter dealing with the fundamental principles of representation in the governing bodies of the Association and it is the feeling of your committee that it should be placed by us before the House of Delegates without our

* This section of the Committee's Report was deleted. The proposed amendment was voted on as unfinished business, and failed to receive the two-thirds support necessary for adoption.

formal recommendation either that it be adopted or be not adopted.

If, however, the House of Delegates favors the principle of strict district representation as proposed in this amendment, your committee believes that the procedure provided in it is faulty in that it opens the way for abuses which may prove as bad as those it is designed to correct.

A meeting of delegates in a district composed of widely scattered counties, if called prior to the annual California Medical Association convention (as is permitted and apparently intended by the proposed amendment) would, in many cases, almost certainly not be attended by even a majority of the district delegates. The amendment provides no quorum limitation for the meeting of district delegates. It is easy to imagine the selection of a nominee by a very small number of delegates at such a meeting. The election would then be final and binding not only on the House of Delegates but on the other delegates from the district itself.

If the House of Delegates desires to adopt the principle contained in this amendment, we believe it should be redrafted with the above considerations in mind.

Without commitment or recommendation, therefore, regarding the underlying principle of representation involved, your committee recommends that the amendment in its present form do not pass.

* * *

[Above digest of minutes of the meetings of the House of Delegates was submitted by F. C. Warnshuis, Secretary.]

COUNCIL MINUTES*

Minutes of the Two Hundred and Sixty-First Meeting of the Council of the California Medical Association

Held in Room 449 of the Hotel Huntington, Pasadena, California, Sunday, May 8, 1938, at 8 p. m.

1. **Call to Order.**—The meeting was called to order by Chairman Gibbons, with the following members present: President Howard Morrow, President-Elect William Roblee, Past President Edward M. Pallette, Speaker Lowell S. Goin, Chairman of Council Morton R. Gibbons; Councilors Calvert L. Emmons, Carl R. Howson, Louis A. Packard, Axcel E. Anderson, Alfred L. Phillips, Oliver D. Hamlin, Frederick N. Scatena, Henry S. Rogers, Junius B. Harris, C. O. Tanner, William H. Kiger, Harry H. Wilson; Chairman of Public Relations Committee Charles A. Dukes, Editor George H. Kress, Secretary F. C. Warnshuis, General Counsel Hartley F. Peart and his associate, Mr. Howard Hassard.

Absent: Doctors Kelly and Schaupp.

2. **Report of Auditors.**—The Secretary presented the annual audit of the Association's financial accounts as prepared by Ernst & Ernst, certified public accountants, and on motion of Charles Dukes, seconded by Calvert Emmons, the annual audit for the year 1937 was approved.

3. **Budget for 1938-1939.**—The Secretary presented the budget of Association income and expense for the year 1938-1939, as prepared by the Auditing Committee, and approved by the Executive Committee and the Council at previous meetings. There being no additions or corrections, the Secretary was instructed to submit the budget, as presented, to the House of Delegates on Monday evening.

4. **Committee Reports.**—Reports of the Special and Standing Committees of the Association, as published in the Pre-Convention Bulletin, were presented, and there being no objection were approved for presentation to the House of Delegates.

5. **Legal Department.**—In accordance with previous Council action, the General Counsel stated that he was prepared to report verbally to the House of Delegates on Monday.

6. **Report of Council.**—The annual report of the Council, as prepared by the chairman, Morton R. Gibbons, was submitted and discussed section by section, and certain minor changes in wording adopted. (Complete report to be published in Minutes of House of Delegates).

Edward M. Pallette moved that the following provision for amendment to Section 20 of the By-Laws be included in the Council report for presentation and action by the House of Delegates:

Resolved, That Subsection (a) of Section 20 of Chapter V of the By-Laws of this Association be and is hereby amended by inserting after the phrase "the Committee on Postgraduate Activities," and before the phrase "and the President" in the first paragraph of said subsection, the following: "The Committee on Medical Defense."

The motion was seconded by Lowell S. Goin, and the General Counsel was instructed to put the amendment in proper form for inclusion in the Council's annual report to the House of Delegates.

Discussion was had of certain amendments to the By-Laws to provide for the clarification of the present provisions of disciplinary action, as recommended by the Special Committee on Revision of Amendments to the Disciplinary Code, Lowell S. Goin, Chairman.

After full discussion, the General Counsel was instructed to prepare the amendments to Section 3, Subsection (a), Paragraph (6) of Chapter II of the By-Laws; Section 3, Subsection (a), Paragraph (7), of Chapter II of the By-Laws; and Section 4 of Chapter II of the By-Laws.

The Secretary was instructed to present the amended report of the Council for approval at the Monday meeting of the Council.

7. **Press Publicity Committee.**—In accordance with Council action, the Secretary reported that he had appointed as the Press Publicity Committee for the Pasadena session, President Morrow, Chairman of the Council Gibbons, and Secretary Warnshuis.

On motion of Charles Dukes, seconded by Louis Packard, the membership of the Press Publicity Committee was approved.

8. **Exhibit Space.**—The Secretary reported that, in accordance with previous instructions of the Executive Committee, he had provided space for exhibits in the patio of the hotel by the erection of flooring, canvas roofing, and sectional walls.

The action of the Secretary was unanimously approved by the Council.

9. **Committee Members.**—The Council appointed Carl Howson, F. N. Scatena, and Calvert Emmons to review the membership of Standing and Special Committees of the Association and present nominations.

10. **Appeals.**—The Secretary stated that the time of hearing of the appeals of Doctors Ross S. Carter and George Roy Stevenson had been fixed at 2 p. m., Monday, May 9, 1938, in Room 449 of the Hotel Huntington, Pasadena.

The Council agreed that the hearing would include both matters of procedure and evidence.

11. **Adjournment.**—At this point the Council adjourned to meet at 2 p. m., Monday, May 9, at the same place.

MORTON R. GIBBONS, *Chairman.*
F. C. WARNSHUIS, *Secretary.*

* * *

Minutes of the Two Hundred and Sixty-Second Meeting of the Council of the California Medical Association

Held in Room 449 of the Hotel Huntington, Pasadena, California, Monday, May 9, 1938, at 2 p. m.

1. **Call to Order.**—The meeting was called to order by Chairman Gibbons, with the following members present: President Howard Morrow, President-Elect William W. Roblee, Past President Edward M. Pallette, Speaker Lowell S. Goin; Chairman of the Council, Morton R. Gibbons; Councilors Calvert L. Emmons, Carl R. Howson, Louis A. Packard, Axcel E. Anderson, Alfred L. Phillips, Oliver D. Hamlin, Frederick N. Scatena, Henry S. Rogers, Junius B. Harris, C. O. Tanner, William H. Kiger, Harry H. Wilson; Chairman of Public Relations Committee Charles A. Dukes, Editor George H. Kress, Secretary F. C. Warnshuis, General Counsel Hartley F. Peart, and his associate, Mr. Howard Hassard.

Absent: Doctors Kelly and Schaupp.

2. **Appeals.**—The chairman, Morton R. Gibbons, announced that the Council is now convened pursuant to resolution continuing this hearing, adopted at its meeting

* The minutes of the two hundred and sixtieth meeting of the Council of the California Medical Association were printed in the April, 1938, issue of CALIFORNIA AND WESTERN MEDICINE, page 274. Minutes in this series now printed are for the 261st, 262nd, 263rd, and 264th meetings.

held April 2, 1938, at San Francisco, to hear the appeals of Doctors Carter and Stevenson from disciplinary action taken against them by the San Diego County Medical Society.

Hearing of the appeals was then had.

3. **Council's Annual Report.**—The annual report of the Council, as amended, was considered by the Council. The amended sections, including amendments to Section 3, Subsection (a), Paragraph (6), of Chapter II; Section 3, Subsection (a), Paragraph (7), of Chapter II; and Section 4 of Chapter II; Section 20, Subsection (a), Chapter V, of the By-Laws; resolution instructed delegates to the American Medical Association in regard to revision of Principles of Ethics; and county hospitals.

4. **Foreign Graduates of Medicine.**—It was the sense of the Council that the question of graduates of foreign medical schools be discussed with certain members of the House of Delegates, through a committee consisting of Doctors Pallette, Gibbons, and Warnshuis, and that a suitable resolution be prepared for the House of Delegates.

5. **Public Medical Meetings.**—It was moved by Charles Dukes, seconded by Junius B. Harris, that the matter of individuals or small groups of physicians calling public medical meetings be referred to the Committee on Public Relations with the suggestion that it define procedure or custom for the calling of medical meetings without ruling on ethical aspects. Carried.

6. **Representative of Oakland Chamber of Commerce.** It was moved by O. D. Hamlin, seconded by C. A. Dukes, that Mr. Gray, representative of the Oakland Chamber of Commerce, be invited to present convention facilities available at Oakland when the question of the place of the next annual session was discussed. Carried.

Invitations from Santa Barbara, Del Monte, and Sacramento were also to be discussed at that time.

7. **Committee on Scientific Exhibit Awards.**—It was moved by Louis Packard, seconded by Alfred Phillips, that the Chairman of the Council appoint a secret committee to judge the scientific exhibits at the Pasadena session.

Members of the committee named were Doctors Lemuel P. Adams, E. B. Dewey, and Mast Wolfson.

8. **Adjournment.**—At this point the Council adjourned to meet in the same place at 9 a. m., Tuesday, May 10.

MORTON R. GIBBONS, *Chairman.*
F. C. WARNSHUIS, *Secretary.*

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Minutes of the Two Hundred and Sixty-Third Meeting of the Council of the California Medical Association

Held in Room 449 of the Hotel Huntington, Pasadena, California, Tuesday, May 10, 1938, at 9 a. m.

1. **Call to Order.**—The meeting was called to order by Chairman Gibbons, with the following members present: President Howard Morrow, President-Elect William Roblee; Past President Edward M. Pallette, Speaker Lowell S. Goin; Chairman of the Council, Morton R. Gibbons; Councilors Calvert L. Emmons, Carl R. Howson, Louis A. Packard, Axcel E. Anderson, Alfred L. Phillips, Oliver D. Hamlin, Frederick N. Scatena, Henry S. Rogers, Junius B. Harris, C. O. Tanner, William H. Kiger, Harry H. Wilson; Chairman of Public Relations Committee Charles A. Dukes, Editor George H. Kress, Secretary F. C. Warnshuis, General Counsel Hartley F. Peart and his associate, Mr. Howard Hassard.

Absent: Doctors Kelly and Schaupp.

2. **Place of Next Annual Session.**—The Council heard representatives and considered invitations for the next annual session from Oakland, Del Monte, Sacramento, and the Monterey County Medical Society.

Discussion was had of the resolution presented at the House of Delegates on Monday evening inviting the Association to hold its annual sessions at Del Monte for the next five years in consideration of the Del Monte Properties Company providing added special facilities for scientific sections.

Action was deferred pending the arrival of Mr. Stanley of Del Monte.

3. **Society for the Protection of Medical Research.**—Philip K. Gilman, member of the California Society for the Protection of Medical Research, requested that the Association give support to his organization.

It was moved by Harry Wilson, seconded by Junius B. Harris, that the matter be held under consideration for discussion at the first meeting of the Council, following the annual session. Carried.

4. **Department of Employment Fee Schedule.**—The Secretary read the reply received from the Department of Employment in response to his request for information on the type of examination desired by the Department in hearings before its appeals section.

In view of the fact that the information contained in the letter was insufficient to warrant the attempt at preparation of a fee schedule, on motion of Louis Packard, seconded by Carl Howson, the matter was referred back to the Committee on Public Relations with the request that it secure more definite data.

5. **Scientific Programs for Annual Sessions.**—The Secretary suggested that section officers be requested to submit the scientific programs for annual sessions on forms to be supplied them by the Secretary's office, and briefly outlined the form he had in mind.

George H. Kress moved, seconded by Charles A. Dukes, that the suggestion of the Secretary, in regard to form for the submission of scientific programs, receive the sanction of the Council, and the Secretary be authorized to proceed in this manner. Carried.

6. **Reinstatement of Delinquent Members.**—It was moved by Howard Morrow, seconded by Alfred Phillips, that those physicians whose memberships had lapsed on account of delinquency and whose dues have been accepted by county secretaries and received by the State Secretary since April 1, 1938, be reinstated to membership in the California Medical Association. Carried.

7. **Members' Endowment Fund.**—The question of returning to the two members the two $100 contributions which had so far been received for the Members' Endowment Fund was discussed.

It was moved by Edward Pallette, seconded by George Kress, that the moneys be retained as a nucleus for the Fund. Carried.

8. **Financial Statements.**—Financial statements of the Association for the months of January, February, March, and April, 1938, as mailed to all councilors, were approved.

9. **Guest Speaker.**—It was moved by Charles A. Dukes, seconded by Junius B. Harris, that the Secretary announce at the general meeting today the presence of a guest speaker for the Urological Section.

10. **Allied Organizations.**—It was moved by Edward Pallette, seconded by George Kress, that whenever allied organizations or special societies planned to meet at the same time or place as the State Association, their programs be submitted to the Committee on Scientific Work for approval. Carried.

11. **Committee on Migratory Workers.**—The Secretary presented the report of Karl Schaupp, Chairman of the Advisory Committee for Furnishing Care to Migratory Workers, copies of which had previously been mailed to all Council members.

It was moved by Junius B. Harris, seconded by Henry Rogers, that the report of the Committee on Migratory Workers be received and the committee continued. Carried.

12. **Associated Societies and Technical Groups.**—The Secretary read a letter from John V. Barrow, Chairman of the Committee on Associated Societies and Technical Groups, regarding voting strength of the medical profession.

It was the sense of the Council that the letter be received and placed on file.

13. **Medical History.**—A letter from the Works Progress Administration regarding the compilation of a medical history through WPA workers was discussed.

On motion duly made, seconded and carried, the entire matter was referred to the Chairman of the Committee on History and Obituaries, F. R. Makinson, with a request that he report at the first meeting of the Council following the annual session.

14. **Indemnity Defense Fund.**—On nomination of William Kiger, seconded by C. A. Dukes, Lemuel P. Adams of Oakland was elected a member of the Indemnity Defense Fund Board of Trustees for a period of three years.

In accordance with the suggestion of Doctor Adams, the Secretary was instructed to distribute the funds of the Indemnity Defense Fund among several banks so as to

comply with the requirements that provide for insurance of savings accounts by the Federal Government.

15. **Retired Membership.** — The Secretary presented membership data and requests for retired memberships for several members of the Association, as approved and requested by various county societies.

It was moved by Henry S. Rogers, seconded by A. E. Anderson, that retired membership in the California Medical Association be granted to Lyle Graham, Newberry, San Bernardino County Medical Society; John Addison Shreck, Redlands, San Bernardino County Medical Society; George H. McLellan, San Diego, San Diego County Medical Society; William S. Van Dalsem, San Jose, Santa Clara County Medical Society; Chester H. Fairchild, Woodland, Yolo-Colusa-Glenn County Medical Society; Leo L. Meininger, San Francisco, San Francisco County Medical Society; Mary E. Botsford, San Francisco, San Francisco County Medical Society; and Albert L. Derbyshire, Stirling City, Butte County Medical Society. Carried.

The Council's attention was directed to the fact that certain of these members whose illness prevented contact had allowed their dues to lapse, and it was agreed that in such event the retired membership should be retroactive and date from the year in which membership dues were paid.

16. **Greetings.**—The Chairman presented greetings to the Society from the Acting Royal Vice-Consul of Italy and requested that we give publicity at our meeting to the program of the Society on Malariology of Italy.

17. **Legal Department.**—The General Counsel reported on the case of the *People* vs. *Pacific Health Corporation*; the Health Service System of San Francisco; *Lavine* vs. *Doctors Graun and Harder.*

18. **Hospitalization Plan.**—The Secretary presented a letter from Thomas J. Dozier, Secretary of the Contra Costa County Medical Society, with attached draft of a plan of hospitalization drafted by a lay committee.

It was moved by Edward Pallette, seconded by Henry Rogers, that the "Coöperative Hospital Association Plan" of Contra Costa be referred to the Committee on Public Relations for report. Carried.

19. **Journal to American Medical Association Delegates.**—A letter of appreciation for the complimentary copies of the Association JOURNAL was presented.

It was moved by Edward Pallette, seconded by Alfred Phillips, that the custom of sending complimentary copies of CALIFORNIA AND WESTERN MEDICINE to officers and delegates of the American Medical Association be continued. Carried.

20. **Hearing.**—The General Counsel was instructed to review and digest the exhibits and testimony submitted in the San Diego appeals.

21. **Los Angeles County Institutions Commission.**—Doctor Kress requested that the General Counsel be authorized to keep in touch with the representatives of the Los Angeles County Medical Association who are working on the enactment for a County Institutions Commission so that he may help them in preparing an act that would be a desirable model for other counties.

It was moved by Louis Packard, seconded by Alfred Phillips, that Mr. Peart be permitted to act in an advisory capacity on behalf of the California Medical Association. Carried.

22. **Council Meeting.**—The Chairman of the Council stated that the Council would convene at 9 a. m., Wednesday, May 11, 1938, for the consideration of the appeals of Doctors Carter and Stevenson and such other business as may properly come before the meeting.

23. **Adjournment.**—At this point adjournment was taken until 9 a. m., Wednesday, May 11.

MORTON R. GIBBONS, *Chairman.*
F. C. WARNSHUIS, *Secretary.*

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Minutes of the Two Hundred and Sixty-Fourth Meeting of the Council of the California Medical Association

Held in Room 449 of the Hotel Huntington, Pasadena, California, Wednesday, May 11, 1938, at 9 a. m.

1. **Call to Order.**—The meeting was called to order by the chairman, Morton R. Gibbons, with the following members present: President Howard Morrow, President-Elect William Roblee, Past President Edward M. Pallette, Speaker Lowell S. Goin, Chairman of Council Morton R. Gibbons; Councilors Calvert L. Emmons, Carl R. Howson, Louis A. Packard, Axcel E. Anderson, Alfred L. Phillips, Oliver D. Hamlin, Frederick N. Scatena, Henry S. Rogers, Junius B. Harris, C. O. Tanner, William H. Kiger, Harry H. Wilson; Chairman of Public Relations Committee Charles A. Dukes, Editor George H. Kress, Secretary F. C. Warnshuis, General Counsel Hartley F. Peart and his associate, Mr. Howard Hassard.

Absent: Doctors Kelly and Schaupp.

2. **Place of Next Annual Session.**—Mr. Carl Stanley presented the convention facilities of Hotel Del Monte.

On motion duly made, seconded and carried, Hotel Del Monte was selected as the place of the next annual session. Date to be fixed at the next Council meeting.

3. **Standing Committee Memberships.**—Carl Howson, Chairman of the Council's Committee to review memberships of Standing Committees, submitting the report of his committee, which was approved by the Council for submission to the House of Delegates. (See minutes of the House of Delegates.)

4. **Pneumonia Control.**—The Secretary presented the recommendations of the Chairman of the Committee on Public Health and Instruction for an Advisory Committee on Pneumonia Control. After consideration, the matter was referred to the next meeting of the Council.

5. **Cancer Commission.**—Members of the Cancer Commission, whose terms had expired, were reappointed by Doctor Roblee and, in accordance with the wish of Doctor Brunn, he was replaced by Dr. Alson Kilgore.

6. **Appeals.**—It was moved by Calvert L. Emmons, seconded by Charles A. Dukes, that the Council go into executive session for the purpose of considering the appeals of Doctors Carter and Stevenson.

The Chairman stated that the record showed a full quorum present of qualified councilors; Doctor Goin being present, but not participating.

Hearing of the appeals was then continued. The Council recessed at 11 a. m. and reconvened at 2 p. m.

7. **Reconvening of Council.**—At the end of the hearing of the appeals, the Chairman announced that the Council would rise from executive session and consider other business before it.

8. **American Medical Association Meeting.** — The Secretary read a letter from Doctor Goodrich of the Medical Society of the State of New York requesting support for its bid for the 1940 meeting of the American Medical Association. No action taken.

9. **Migratory Workers Committee.**—A telegram addressed to Henry Rogers by the Chairman of the Advisory Committee on Care of Migratory Workers was read, stating that the committee was attempting to adjust the problem of mileage fees.

10. **George D. Maner.**—The Council, on being informed of the illness of George D. Maner, Secretary of the Los Angeles County Medical Association, authorized the Secretary to send a telegram of greetings and regret of his illness.

11. **Adjournment.**—At this point the Council adjourned to meet at 9 a. m., Thursday, May 12, 1938.

MORTON R. GIBBONS, *Chairman.*
F. C. WARNSHUIS, *Secretary.*

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Minutes of the Two Hundred and Sixty-Fifth Meeting of the Council of the California Medical Association

Held in Room 449 of the Hotel Huntington, Pasadena, California, Thursday, May 12, 1938, at 9 a. m.

Note.—The Constitution of the California Medical Association provides that the annual organization meeting of the Council for the election of its officers and employees shall be held on the last day of the annual session. On May 12, 1938, the Council at its organization meeting went into executive session. The minutes of the executive session will be printed in the August issue.

THIS MONTH'S TOPICS*

ASSOCIATION ACTIVITIES

1. *American Medical Association Session at San Francisco.*
2. *Annual Session.*
3. *Some Facts.*
4. *Passing Comment.*
5. *An Informed Public.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Preventive Medicine.*
2. *You Must.*
3. *Physicians and Cultists.*
4. *Questionnaires—Warning.*

AMERICAN MEDICAL ASSOCIATION SESSION AT SAN FRANCISCO

Six thousand and forty Fellows registered and some two hundred endeavored to register after the closing of the windows on Friday noon. With some 1500 exhibitors and an estimated 2500 of members and friends of Fellows, the San Francisco session of the American Medical Association brought some 11,000 individuals to San Francisco for the week's session. Fifteen years ago the registration was 3754.

The program was carried out without a hitch in any detail. The weather was ideal. On every hand were visitors profuse with praise for the hospitality extended, the enjoyment experienced, and the benefits derived. It was a notable session.

Doctor West: A most satisfactory session, with perfect arrangements.

President Abell: One of the best sessions in the history of the Association.

Will C. Braun, Business Manager: Never saw such pleased exhibitors. One of our best meetings in years.

Many delegates: A fine meeting, ideal arrangements. San Francisco's profession did a fine job. Hospitality was most cordial. This is one of our best meetings.

Many similar quotations could be recorded. The transactions will be published in early issues of the *Journal of the American Medical Association.* Members are urged to read them and become informed as to policies and principles enacted.

Dr. Rock Sleyster of Wisconsin was elected president-elect.

Dr. Olin West was, of course, reëlected secretary.

The two trustees, whose terms expired, were reëlected.

St. Louis was selected for the 1939 annual session.

It was a tremendous task but also a joy to entertain and provide for these distinguished visitors, and San Francisco's profession may well be content that they acquitted themselves so creditably.

ANNUAL SESSION

This issue contains a digest of the official minutes of the Pasadena annual session. The endeavor is made to record the more important actions enacted by the House of Delegates. This supreme governing body, after due deliberation, has handed down the working orders for the coming year—orders, or rather instructions, that must be observed and carried out by officers and committees. There can be no deviations from these instructions. Our Association's activities will be consistent with these instructions because the chosen delegates have declared these to be the wish and desires of the members they represented. It is, therefore, important that all members be familiar with these instructions and policies in order that they may know that their committees and officers are conforming to the implicit instructions of our supreme governing body. Read these instructions carefully and conform to them.

SOME FACTS

In the recently published annual reports of the American Medical Association there are some items of particular interest to California members. The state is credited as having 10,859 licensed physicians, but no one knows how many have retired, are in special work, or hold executive positions. Our own general estimate is that there are 7,000 eligible licensed physicians who could become members of their county and state organizations. We are credited with 5,695 members, but have 6,008. Of this number, 3,855 are Fellows of the American Medical Association. There are 2,692 JOURNAL subscribers in the state. Some 1,500 of these could transfer their subscriptions to fellowship, thereby increasing our total to 5,355. Fellowship dues are the same as subscription. It is a conjecture as to just why members do not change their classification to fellowship.

The American Medical Association has 109,435 members, of which 68,478 are Fellows. This is the highest enrollment ever recorded. It is estimated that there are 169,000 physicians in the states and territories of the Union, and that 75 per cent plus are affiliated with county and state organizations. Certainly an excellent record.

PASSING COMMENT

Farm Administration Security—Under these arrangements county societies have the opportunity to demonstrate that the actual providing and rendering of medical care to government wards can best be administered by our organizational units and that such county medical society supervision is preferable to governmental supervision and direction.

* * *

Venereal Disease.—If our physicians fail to become proficient in the modern treatment of venereal disease; if they fail to diagnose the disease and permit many patients to continue untreated for their infection; if physicians fail to coöperate in this program—then they and they alone are to blame if federal and state agencies step in and take over the care and treatment of all infected persons in government clinics and institutions.

AN INFORMED PUBLIC

Physicians should embrace every opportunity to transmit to the public dependable facts in order to build and mold sound public and private opinion upon public and private health. Similar educational methods should be employed in regard to questions of economics, legislation and medical service proposals.

When people are dependably informed it may be expected that majorities, in place of vocative minorities and propagandists, will determine the wishes and will of the people. After all, an informed public—and they must be rightly informed—will determine the future conditions of medical practice as well as to decide what, if any, changes are to be instituted. Medicine may lead and guide. The decision remains with and will be recorded by the public.*

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Preventive Medicine

Individual doctors should practice more preventive medicine. Preventive measures should be urged upon parents who are your patients. You fail to meet the trust reposed in you when you do not advise parents to protect their children from preventable infections.

An approved schedule is: Pertussis, age 4 to 6 months; diphtheria at 9 months; vaccination at 12 months; Schick

*All articles listed under the caption, "This Month's Topics," have been written and sent to the Editor by the Association Secretary, Dr. Frederick C. Warnshuis.

* The submitted item which would have followed is referred to the Council for consideration. Pending decision by the Council, its publication is postponed.

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

test, 18 months or 6 months after the last dose of toxoid; tuberculin test at age of 3, 6, 9, 12 and 15 years. Advise use of iodized salt. Advise annual examination after third year.

* * *

You Must

There are plenty of "musts" in this day and age. Many of the "musts" gall us because they impose upon our time and pry a bit too far in our personal affairs. However, there are certain "musts" that physicians are holden to observe if they desire to stay out of trouble with authorities and the law. To impress them upon members anew the following "musts" are cited:

1. Report immediately to police authorities every patient who presents a "gunshot" or "stab" wound. Also patient injured by body attack or assault.
2. Every case of criminal abortion. Call in able counsel before you administer treatment, and notify police at once.
3. Notify police of every suicide or attempted suicide.
4. Report every contagious disease.
5. Report every birth, even if stillborn and premature.
6. Every narcotic addict seeking to obtain a narcotic prescription.
7. Obtain written consent before performing an autopsy.
8. Obtain written consent from parent or guardian before operating on a minor.

* * *

Physicians and Cultists

The following is from the recent annual report of the Judicial Council of the American Medical Association. Attention is directed to this opinion and ruling for the reason that every month such inquiry is received from several members and hospital officials. It is hoped that members will conform to this opinion:

Many inquiries concerning the relations of the various cults to the regular profession have been received. The inquiries pertain particularly to the osteopath and the optometrist. Some of our members are giving lectures in osteopathic and optometric schools and addresses before their societies. Some members are associated by a common waiting room in offices with them. Some members are by mutual agreement professional associates principally in the field of surgery. There are some instances of partnership in practice. All of these voluntarily associated activities are unethical. Such relations certainly do not "uphold the dignity and honor of (our) vocation" or "exalt its standards." In case of emergency no doctor should refuse a sufferer knowledge or skill which he possesses to the sufferer's harm, but this is quite a different matter from that of a consultant or practitioner who by consulting or practicing with him assists a cultist to establish himself as competent and on the same basis of medical knowledge as a doctor of medicine. By the very nature of the education and training of each, a consultation with a cultist is a futile gesture if the cultist is assumed to have the same high grade of knowledge, training and experience as is possessed by the doctor of medicine. Such consultation lowers the honor and dignity of the profession in the same degree to which it elevates the honor and dignity of the irregular in training and practice. Practicing as a partner or otherwise has the same effect and objection. Teaching in cultist schools and addressing cultist societies is even more reprehensible, for such activities give public approval by the medical profession to a system of healing known to the profession to be substandard, incorrect, and harmful to the people because of its deficiencies. There hardly can be a voluntary relationship between a doctor of medicine and a cultist which is ethical in character.

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Questionnaires—Warning

There seems to be an epidemic of question blanks floating about the country. Propagandists, as well as medical publishers, are flooding doctors with questions seeking to put the profession on record—just as was attempted a few years ago—in regard to cigarettes and liquor. Part is publicity and part to obtain quotable figures.

The warning is given to toss all these blanks and cards in the waste basket. Do not become a party to these unapproved activities. *Answer no blank or question card unless you are certain that they are endorsed by your county and state medical organizations.* In these days this is a safe rule to follow.

COMPONENT COUNTY MEDICAL SOCIETIES

MONTEREY COUNTY

The monthly meeting of the Monterey County Medical Society was held at the Santa Lucia Inn in Salinas on Thursday, June 2, Dr. Curtis B. Gorham presiding. . . .*

It was moved, and seconded, that the Secretary write a letter to Dr. H. G. Wetherill of Monterey, notifying him of an honorary membership in the Monterey County Medical Society.

Applications for membership in the Society, which were approved by the Board of Censors and the members of the county society by ballot, were: Dr. Reinhard Bachrach, Salinas; Dr. Martin McAulay, Monterey; and Dr. Marshall Carter, Carmel. Dr. D. H. De Smet's application was considered, but in view of having left Monterey County before six months' residency, application was refused.

A discussion as to the obsolescence of the Monterey County Medical Society's constitution was held, with the consensus of opinion that it should be revised. A committee was appointed by Doctor Gorham to revise the constitution and by-laws.

Dr. James McPharlin made a motion that our district councilor, Dr. Alfred Phillips, be invited to attend the next regular monthly meeting at the Hotel Del Monte on July 7. The motion was seconded by Doctor Wiebe.

HARRY R. LUSIGNAN, *Secretary.*

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SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held at the Trocadero in Lodi on June 2. Following a delightful dinner the meeting was opened by President A. C. Boehmer at 8:30 p. m.

On motion of Doctor Powell, reading of the minutes of the previous meeting was dispensed with.

The application of Dr. Dora Ames Lee was read and referred to the Admissions Committee. A letter from the California State Relief Administration requesting a list of physicians who would do work for them similarly to that now being done by the Agricultral Workers' Health and Medical Association was read. It was moved by Doctor Doughty, seconded from the floor, that the California State Relief Administration be advised to increase their fees to the level paid by the Agricultral Workers' Health and Medical Association and that, in the event of this increase in fees, the Society would be happy to furnish a panel for them.

The action of the Board of Directors of the San Joaquin County Medical Society recommending the establishment of the Alpha Chapter of the Medical Academy of Graduate Study was endorsed by the Society.

Dr. Junius B. Harris, Councilor-at-Large from Sacramento, spoke on *Legislative Problems Confronting the California Medical Association.* Dr. F. C. Warnshuis, Secretary of the California Medical Association, spoke on the *State of Organized Medicine in California.*" . . .*

G. H. ROHRBACHER, *Secretary.*

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SAN MATEO COUNTY

The joint meeting of the San Mateo County Medical Society and the Woman's Auxiliary was held in the main dining room of the Benjamin Franklin Hotel on May 26, with Dr. Hartzell H. Ray presiding.

The Secretary made an announcement concerning the necessity for members who wish to attend the scientific sessions at the American Medical Association meeting in June to obtain a fellowship card prior to the meeting.

Doctor Ray announced the names of the following new members: Doctors Leslie Seeley, Normal Fox, and Werner Glaser. Copies of the constitution were given to Doctors Fox and Seeley, who were present.

* The Council of the California Medical Association will consider the item here omitted. Publication of the item is postponed pending decision by the Council.

Mrs. Benninghoven, President of the Woman's Auxiliary, was introduced and made a few remarks concerning the formation of the local Auxiliary and extended an invitation to the wives of all members of the county society to join the Auxiliary.

Mr. Wheaton H. Brewer was introduced and presented an interesting and informative talk on the early history of San Mateo County. Many interesting facts concerning early medical history were brought out.

Dr. Frederick C. Warnshuis, Secretary of the California Medical Association, was introduced and spoke on the Woman's Auxiliary as an integral part of organized medicine.

Both speakers were enthusiastically received.

J. Garwood Bridgman, *Secretary.*

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STANISLAUS COUNTY

The regular monthly meeting of the Stanislaus County Medical Society was held at the Hotel Hughson on Thursday, June 9. Thirteen members were present. Dr. Joseph Azevedo presided.

The minutes of the last meeting were read, and under the heading of "Old Business," Doctor Azevedo outlined an interview with a certain member who had violated the ruling in regard to lodge practice, and also an interview with his associate. The conclusion reached was this: That these doctors were willing to conform if there actually be need for it. Mention was also made of another doctor who had entered into a contract with another lodge who had asked to continued on for a year, as was originally agreed with the lodge. However, a motion was made by Doctor Wilson, seconded by Doctor Husband, that this practice be stopped immediately and that the doctor in question be informed. Doctor DeLappe suggested that the whole matter of lodge practice and the question of discipline connected with it be submitted to the legal department of the California Medical Association to ascertain the rights of the local society in relation to it. . . .

Dr. Hans Hartman gave a report of the meeting of the House of Delegates held in Los Angeles on May 12.

Dr. Radcliff of Modesto and Dr. E. A. Weizer of Oakdale were admitted as new members to the county society.

Having no board of censors, a motion was made by Doctor Wilson that one be elected. Doctor Maxwell, being the only doctor mentioned in the minutes of the meeting, was chosen as one censor, and Doctor Azevedo was authorized to appoint two others.

An interesting talk on *Medical Experiences in China,* illustrated by movies, was given by Dr. Richard E. Strain.

At the close of the meeting two other censors were chosen—Dr. Donald Robertson and Dr. R. S. Hiatt. The selection was made by the president, the secretary, and Doctor Maxwell.

Hoyt R. Gant, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (55)

Alameda County

William B. Chew

Fresno County

Harvey E. Starr

Los Angeles County

Sol R. Baker
Chester E. Cornell
Richard C. Dickmann
George D. Doroshow
John Wesley Field
Saul L. Fox
Louis L. Gewertz
Gilbert H. Johnson
Elisabeth Larsson
Leo M. Levi
M. P. Lipman
William R. Molony, Jr.
Myron Prinzmetal
A. Edward Roome
Leonard N. Sloan
Alva C. Surber, Jr.

Marin County

William Joseph Reynolds

Mendocino-Lake County

George Loye

Orange County

Lawrence E. Poole

Riverside County

Samuel D. Berke
Stanley N. Hilde
James C. Long

San Benito County

Ronald E. Brown

San Diego County

Russell Eugene Atkinson
Nathan A. Dubin
J. M. Maguire
Nile Irwin Reeves
Milo C. Schroeder
Carrol S. Small

San Francisco County

William Keller Beare
George O. Chalfant
John M. Collins
Lloyd B. Dickey
Richard J. Duggan
Joseph B. Giovinco
Occo Elaine Goodwin
Walter G. Harder
Paul D. Michelson, Jr.
Edgar J. Poth
Sergius S. Rakitin
Dwight E. Shepardson
Frank P. St. Clair
Glen P. Vincent
Leon Mitchell Wilbor
Lloyd E. Wilson
Paul S. Wyne

San Mateo County

Werner Glaser

Santa Clara County

David B. Draper
Harold C. Sox

Santa Cruz County

Anton J. Sambuck

Sonoma County

Kenneth J. Dunlavy
H. M. Every
C. Addison O'Connor

Transferred (3)

Clement E. Counter, from San Bernardino County to Los Angeles County.

Robert D. Dunn, from San Francisco County to Santa Clara County.

J. H. Stickler, from Los Angeles County to Nevada State Association.

Resigned (2)

F. A. Cummins, from Los Angeles County.

W. Fred Stahl, from Los Angeles County.

In Memoriam

Baker, Fred. Died at Point Loma, May 16, 1938, age 84. Graduate of the University of Michigan Medical School, Ann Arbor, 1880. Licensed in California in 1888. Doctor Baker was a retired member of the San Diego County Medical Society, the California Medical Association, and the American Medical Association.

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Hummel, Edward Morton. Died at San Francisco, May 30, 1938, age 62. Graduate of Tulane University of Louisiana School of Medicine, New Orleans, 1902. Licensed in California in 1920. Doctor Hummel was a member of the Mendocino-Lake County Medical Society, the California Medical Association, and the American Medical Association.

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Nichols, Fred Colman. Died at Glasgow, Scotland, June 16, 1938, age 56. Graduate of St. Louis University School of Medicine, 1904. Licensed in California in 1922. Doctor Nichols was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Whitelock, Thomas Sidney, Sr. Died at San Diego, May 25, 1938, age 75. Graduate of Gross Medical College, Denver, 1899. Licensed in California in 1901. Doctor Whitelock was a member of the San Diego County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARY

Fred Baker*
1854–1938

Dr. Fred Baker, an outstanding figure in the professional, civic and cultural development of San Diego, expired at Mercy Hospital, May 16, 1938. He came to our city January 2, 1888, and resided for a time on Seventh Avenue between F and G. streets, which is now in the lower part of the city's business center. Later he moved to Roseville, during the year 1897, and resided in that vicinity until his final illness.

Doctor Baker was a graduate of the University of Michigan, where he obtained his M. D. degree in 1880 and where he met his wife and partner of many years, Dr. Charlotte Baker, who died October 30, 1937. They were associated with practically every movement which was worth while within the city or county of San Diego. Doctor Charlotte Baker assisted at more than a thousand births, and it is said that she attained a record of never having a maternal fatality during that time.

He was a life member of the California Academy of Science, Golden Gate Park, San Francisco (this is the oldest scientific organization in the state); honorary curator of mollusks at the University of California; a former president of the San Diego Society of Natural History; a charter member of the San Diego Yacht Club and of the San Diego Historical Society; past president of the Marine Biological Association; and an ardent prohibitionist—upon this subject he wrote extensively. He was a veteran of many local campaigns and, years ago, served seven years on the Board of Education, six years on the Board comparable to the present City Council, and two years on what then was the normal school board. He was a life member of the Pacific Geographic Society and the Sons of the American Revolution and held the distinction of being one of two persons ever to be reëlected as president of the San Diego County Medical Society. He also served as president of the Southern California Medical Society. He had a marked interest in the natural sciences and was one of five members of the Society of Natural History who, in December, 1916, incorporated the San Diego Zoölogical Society.

Born in Norwalk, Ohio, January 29, 1854, Doctor Baker lived a long, helpful, and happy life. He was well traveled, well read, and greatly respected. Little more can be said save that one of his last remarks was, "I've lived a jolly life."

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION†

MRS. CLIFFORD A. WRIGHT.....President
MRS. FRED ZUMWALT.....Chairman on Publicity
MRS. FRANK H. RODIN....Assistant Chairman on Publicity

Official Notices

REPORT OF MRS. HOBART ROGERS, PRESIDENT

To the Members of the Woman's Auxiliary to the California Medical Association:

One brief year ago I undertook on your behalf the duties of president. Pleased and gratified by the honor bestowed upon me, I felt very humble and a little bewildered by the responsibilities that I had assumed. Now, standing before you to render an accounting of my stewardship, I feel that these very duties and responsibilities have made the past year one of the happiest of my life. Your willingness to work on behalf of the Auxiliary, your loyalty and devotion to its principles, have made my tasks a pleasure.

One of my first duties as president was to attend the National Convention at Atlantic City, where I was invited to give the response to the address of welcome. The value to the incoming president in being able to attend the National convention cannot be overestimated. A concept of our organization in its entirety can best be gained in this way. The benefits of the personal contacts made and the meetings and conferences attended makes one aware of the importance of the State Organization in a unified National program. I returned from the convention with a will and a zest to live up to the reputation established by the California women.

The details of the accomplishments of the year, now about to close, I leave as the privilege of the various chairmen and county presidents to report. The results of our combined efforts can best be appreciated by one who is in a position to view all reports, and these I shall recount to you.

At the beginning of the year, on March 15, 1937, we had seventeen organized counties with a membership of 1,272. On May 1 our membership was 1,863. This represents an increase of 46.5 per cent. Five new counties have been added. In November the counties of Butte and Santa Cruz, with a membership of 13 and 24, respectively, were organized. Both units are getting well established, and we may depend on them to become a real asset to the medical profession and to the community. Tulare County was added to our growing organization in January. They have fifteen capable and enthusiastic members, and we shall hear gratifying reports from them soon. The Merced County Auxiliary was organized in March. We are happy to be able to welcome the Merced unit this year. Merced County has an active county medical society, and the Auxiliary will be a decided gain to them and to the entire state. San Mateo County entered the ranks in May. The enrollment of San Mateo County gives us Auxiliaries in all the coast counties from San Francisco Bay to the southern border, with the exception of Ventura County. Some interest has been aroused there and we are hopeful of having an Auxiliary.

We have coöperated with the newly organized counties by assisting them in the formation of a constitution which conforms in every essential particular to the requirements of the State and National organizations and which provides flexibility to meet the individual needs. Each has been visited and acquainted with the field of the Auxiliary work. This responsibility has been largely carried on by Mrs. Frederick N. Scatena, the able and efficient chairman on organization. Her untiring efforts on behalf of the Auxiliary deserve the highest praise.

Outstanding work has been done in promoting *Hygeia* this year. Fresno County and Marin County each received national honorable mention. The experience of Fresno County was interesting. Eleven subscriptions given to the public library last year were renewed this year by the library board because of the popularity of the magazine. This demonstrates that *Hygeia* has a broad reader appeal and that it will win friends for itself once it has been introduced. Although we had a most satisfactory increase in the number of subscriptions this year, I feel that we should have had many more.

One activity of our Public Relations Department deserves special mention. A number of counties have held reciprocity meetings at which time representatives of lay organizations were invited. In these programs health topics of vital interest to the community were presented. This is a splendid opportunity for disseminating authentic health information and promoting friendliness between the public and the medical profession. It is our hope that more counties will adopt this plan.

We have had four board meetings, with an average attendance of 89 per cent; at the September meeting eight county presidents were present, and in February six attended. The interest of the county presidents in the deliberations of the Board is a most wholesome sign. It provides for an increased responsiveness not only of the county units to State programs, but of State leadership to local problems and to the sentiment of membership. If we

*A recent letter and article from the pen of Doctor Baker appeared in the May issue of CALIFORNIA AND WESTERN MEDICINE, on page 356.

†As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Frank H. Rodin, Assistant Chairman of the Publicity and Publications Committee, 2457 Bay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Rodin and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

have furthered our cause this year it has been due to the hard work, the unified efforts and harmonious coöperation of the Board of Directors and the loyal support of the county units.

A great responsibility faced the Board in the September meeting. It was the unanimous opinion of the Board and the advice of our Advisory Council that the vacancy created by our beloved Dolores Barrow be filled and the work of the Auxiliary proceed without interruption. Mrs. Clifford A. Wright was nominated by Mrs. Benjamin H. Sherman, Councilor from the Second District. Mrs. Wright was the unanimous choice of the Board. I was greatly pleased with their choice, as I am sure you were. The office of president-elect was created to achieve continuity of administration and to provide the incoming president with an opportunity to become acquainted with the personnel and the workings of the State Organization. The president-elect is a member of the Board and chairman of the Finance Committee, and she must, in advance of the meeting, consider her committee chairmen for the following year and prepare a budget for presentation to the House of Delegates. It is manifestly unfair to any woman to be asked to assume the duties of president without serving as a president-elect. It is unfair to the Auxiliary that this important office be left vacant at any time.

In this September Board meeting a Committee on Legislation was authorized and duly appointed. The members of this committee work directly under the supervision of Dr. Junius B. Harris, Legislation Chairman of the California Medical Association. At the request of our Advisory Council we are mobilizing all our strength to combat measures detrimental to scientific medicine in the California Legislature. We do not enter this activity apologetically, for we firmly believe that the interest of the medical profession and the public are identical, and it is our duty not only as Auxiliary members but as good citizens to support the position of scientific medicine. May I urge that our members each acquaint themselves with all the proposed legislation which deals either directly or indirectly with the medical profession so that we may be able to lend our influence in lay groups with which they are affiliated. Correlation of program, public relations and departments of legislation can do much toward the education of our members. We must be informed to educate others.

One of the most pleasant duties of the state president, as well as one of the most arduous, is that of visiting the component county auxiliaries. I have visited twenty of the twenty-two organized county units, traveling some five thousand miles by automobile. I would not have been able to accomplish this had it not been for the kindness and generosity of my good friend and corresponding secretary, Mrs. Charles G. Hall, who accompanied me. In September I visited our northernmost Auxiliary, Lassen-Plumas-Modoc. There I found a loyal group of five women holding high the banner of scientific medicine under great difficulties, two of whom must drive 116 miles through the mountains to attend the meetings. This Auxiliary has increased its membership to nine, an increase of 80 per cent.

I regret that it was physically impossible for me to visit all the counties early in the year. It helps so much to have some personal acquaintance between the State officers and widely separated county leaders. In my visits I attempted to stimulate interest in the mechanics of organization as a foundation for successful coördinated effort in our work and I am convinced of its utility. The enthusiasm at the round-table discussions after each meeting was most gratifying. In each county that I visited I was accorded every courtesy. For your kindness to me I cannot thank you enough. I shall never be able to repay the Auxiliary for the opportunity it has afforded me to meet you and to count you among my friends.

As I prepare to turn over the responsibilities of the office of president to my successor, I regret that I must leave with you problems unsolved and desirable ends unattained. Yet, in a changing world the work of an organization such as ours is incapable of being completed. It rises above the frailties of personalities in a continuous process of adaptation and change. Our cause is best served by the continuous advancement into positions of responsibility of enthusiastic new leaders with original ideas to implement the work. Such leadership inspires me with confidence in the future of the Auxiliary and assures me that our present accomplishment will soon be surpassed. I am sure that you will continue to sustain your State officers in the same sincere and whole-hearted manner in which you have supported me. Thus, uplifted by exalted ideals and supported by sincerity and unity of purpose, our organization shall become a power for rational enlightened progress throughout our state and nation.

Respectfully submitted,

Mrs. Hobart Rogers, *President.*

State News

The ninth annual session of the Woman's Auxiliary to the California Medical Association was held May 9 to 12.

Minutes of the First Session

The first meeting of the ninth annual convention of the Woman's Auxiliary to the California Medical Association was called to order at 9:40 a. m. on May 10, 1938, at the Vista del Arroyo Hotel in Pasadena by the president, Mrs. Hobart Rogers.

Invocation—Reverend Robert Freeman of Pasadena.

Address of Welcome—Mrs. Eliot Alden of Los Angeles.

Response—Mrs. Jack Nicholson of Kern County.

In Memoriam—Mrs. George Calvin gave a short but beautiful service in memory of those members who had passed away during the year: Mrs. J. W. Moore, Mrs. John V. Barrow, Mrs. Isadore B. Dockweiler, Mrs. Clarendon H. Foster, Mrs. Jerry Lacoe, Mrs. George Lund, Mrs. Albert Elliot, Mrs. Charles Durney, Mrs. W. E. Schottstaedt. The service was completed with a violin solo by Mrs. Milton Shutes.

Mrs. Arthur T. Newcomb, Convention Chairman, introduced Mrs. Walter Boyd of Long Beach, who gave details of the entertainment plans.

Mrs. Charles C. Hall reported a total of 195 registrations as of Monday night.

Mrs. Charles A. Dukes of Alameda read the rules of the convention and they were accepted.

Reports of Officers

President's Report.—Mrs. Frederick N. Scatena, First Vice-President, took the chair while the President gave her report. She mentioned the five new county auxiliaries; an increase of 46.5 per cent in state membership and an attendance of 89 per cent at board meetings. Mrs. Phillip S. Doane of Pasadena made a motion that the report be accepted with great appreciation. The motion was seconded and carried.

Treasurer's Report.—Mrs. Harry O. Hund's report showed a balance in the checking account of $1,254.65; savings account of $292.60; library fund, $63.66. The report was ordered filed. The report of the Auditor, read by the Secretary, coincided with that of the Treasurer and was accepted.

Membership and Organization.—Mrs. Frederick N. Scatena reported twenty-two county auxiliaries and six possible ones.

Finance.—Mrs. Clifford A. Wright read the budget proposed for the coming year, and made a motion for its adoption.

Stationery	$ 85.00
Stenographer and clerical help	125.00
Postage	60.00
Telephone and telegraph	35.00
Convention	150.00
Editor and Publicity	350.00
President's discretionary fund	245.00
Membership and organization	100.00
Miscellaneous	30.00
Total	$1,200.00

The budget was adopted by the House of Delegates.

Dues.—The motion was made, and carried, that the dues for the year 1938–1939 remain as in previous years, $1 per capita.

The reports of the following committee chairmen were read and accepted:

Program and Health Education—Mrs. Eliot G. Colby.

Public Relations—Mrs. A. E. Anderson.

Editor and Publicity—Mrs. Fred H. Zumwalt, A beautiful silk banner, the gift of the 1937–1938 *Courier* staff, was presented.

Hygeia—Mrs. Harold Trimble.

Library—Mrs. Benjamin Sherman reported for her committee. She stated that as yet no book plate had been decided upon; that there are fifty-nine books in the library, in addition to the Health plays.

Recommendations—These were printed in the June issue.

Nomination Committee—The President announced the election of Mrs. Harold Trimble and Mrs. Benjamin H. Sherman from the Board for the Nominating Committee. Nominations were asked for from the floor, and the following members were elected: Mesdames John Humber, G. Wendell Olson, and J. R. Walker.

The meeting was adjourned, to be followed by a luncheon in honor of the president, Mrs. Hobart Rogers.

At luncheon the Doane trophy was presented to Lassen-Plumas-Modoc County for an increase in membership of 80 per cent.

* * *

Second General Meeting

The second general meeting was called to order at 9:45 a. m., May 11, 1938, at the Vista del Arroyo Hotel in Pasadena, by the president, Mrs. Hobart Rogers.

Credentials.—Mrs. Charles C. Hall, Chairman of Credentials, reported a total registration of 251.

Roll Call.—Nineteen Board members and sixty-five county auxiliary delegates responded.

The minutes of the first session of the ninth annual convention were read and accepted after corrections had been made.

The report of the historian, Mrs. Frank Edwin Coulter, was read by the Secretary.

District councilors and county presidents reported. Their reports were also accepted.

Resolutions

Report of Resolutions Committee.—The chairman read the following report, presented by Sacramento County:

WHEREAS, The office of president-elect of the Woman's Auxiliary to the California Medical Association became vacant upon the death of our beloved Mrs. John V. Barrow; and

WHEREAS, The Board of Directors in official session in Oakland, September 29, 1937, filled this vacancy by the appointment of Mrs. Clifford Andrews Wright; and

WHEREAS, The gracious acceptance of this appointment merits an appreciation of our gratitude and appreciation; therefore, be it

Resolved, That this House of Delegates, in session this eleventh day of May, 1938, commends the action of the Board of Directors and pledges to Mrs. Wright its utmost confidence and loyal support as president for 1938–1939.

Mrs. Lindemulder moved, Mrs. Phillip Doane seconded, the acceptance of this resolution.

* * *

She then read further:

Resolved, That the Woman's Auxiliary to the California Medical Association, in convention assembled, extend its sincere thanks and grateful appreciation—

1. To Mrs. Hobart Rogers, whose charming personality, combined with her marvelous executive ability, has endeared her to every member of the Auxiliary, and to the members of the Board who have so ably carried their duties to a successful completion;

2. To Mrs. Arthur T. Newcomb and her committee for their difficult work and careful attention, which have done so much for the success of the session and pleasure of the members and guests;

3. To Mrs. Elmer Belt, Chairman of the Musicale, who with her selected group of artists, Mrs. Eva Gruninger Gibson and the Sylvia Noack ensemble, contributed to the success of a delightful evening of music;

4. To the management of the Huntington Hotel and the Vista del Arroyo Hotel for their courtesies;

5. To the Reverend Freeman of Pasadena, who asked God's blessings on our sessions;

6. To the Council of the California Medical Association for their support and coöperation throughout the year;

7. To Dr. Howard Morrow and the members of the Advisory Council of the California Medical Association for their coöperation and support and their sympathetic understanding of our problems as an Auxiliary;

8. To Dr. Lowell S. Goin, Dr. W. W. Roblee, and Dr. E. Eric Larson, for their inspiring messages;

9. To the Los Angeles and Pasadena papers for their coöperation and able presentation of material pertaining to our annual meeting;

10. To Mrs. Milton Shutes and Mrs. W. H. Sargent for the inspiring music during the Memorial Service.

11. To Dr. George H. Kress and Dr. Frederick C. Warnshuis for additional space and courtesies in the publication of Auxiliary news in CALIFORNIA AND WESTERN MEDICINE.

Resolved, That copies of these resolutions be sent by the recording secretary of the convention to the above named, to whom we are deeply indebted, and a copy be placed on file.

(Signed) MRS. F. G. LINDEMULDER, *Chairman*
MRS. A. A. ALEXANDER
MRS. ELIOT ALDEN

Mrs. Lindemulder made a motion that the courtesy resolutions be adopted. The motion carried.

Report of Nominating Committee.—(These names were published in the June issue. See page 465.) There were no nominations from the floor. By *viva voce* vote the candidates proposed by the Nominating Committee were duly elected.

The following were elected district councilors: First District, Mrs. F. G. Lindemulder; Second District, Mrs. Horace H. McCoy; Fourth District, Mrs. J. R. Walker. The other district councilors remain the same as last year.

Mrs. Rogers then presented Mrs. Clifford Andrews Wright, president for 1938–1939, who in turn presented Mrs. E. Eric Larson of Los Angeles, whom she had appointed corresponding secretary. Mrs. Wright was given an enthusiastic welcome.

Incoming officers were introduced by Mrs. Rogers.

Registrations and Credentials.—Mrs. Charles C. Hall gave her final report: Officers, 20; delegates, 64; alternates, 27; members, 152; guests, 4, making a total of 267.

The Secretary read the minutes of this meeting, which were approved as corrected.

The President then thanked her secretary and the Los Angeles Auxiliary for its hospitality and especially for its splendid entertainment.

There being no further business she declared the ninth annual convention of the Woman's Auxiliary to the California Medical Association adjourned.

MRS. H. E. HENDERSON,
Recording Secretary.

News Letter

Dear Auxiliary Members—Greetings:

The greatly anticipated State and National Medical conventions are over and we wend our way to summer vacations and rest. Those who served found happiness in the privilege of serving. Those who were guests enjoyed the entertainment and social events.

It is hoped that each and every one has learned and experienced something that will enrich their life and add to the happiness of living with our fellow beings.

Those who were not able to attend the conventions will find interest in the reports that will be published in these columns in the following issues of CALIFORNIA AND WESTERN MEDICINE.

May we wish you and your dear ones a very happy and restful summer.

Very sincerely yours,
MRS. FRANK H. RODIN.

Component County Auxiliaries

Alameda County

Marking the close of the 1937–1938 year, over one hundred members of the Woman's Auxiliary to the Alameda County Medical Association met at a luncheon at the Clare-

mont Country Club on Friday, May 20. The president, Mrs. A. A. Alexander, presided. At this meeting the mothers of the doctors of Alameda County were honored.

Gladys Steele gave a delightful program of songs in her inimitable style, accompanying herself with grace and skill.

Mrs. A. A. Alexander turned the gavel over to the incoming president, Mrs. Frank Baxter, who presented her Board to the members.

Los Angeles County

The Woman's Auxiliary to the Los Angeles County Medical Association held its regular luncheon meeting on Tuesday, May 24, at the County Medical Building. Mrs. Mark Albert Glaser, vice-president, presided in the absence of the president, Mrs. Eliot Alden.

The guest speaker was Dr. J. M. Flude, western representative of the American Society for the Control of Cancer. His subject was, *Research Work in the Fight Against Cancer.*

The annual reports were read, and the following new officers and directors were installed: Mrs. William H. Leak, president; Mrs. William Boeck, vice-president; Mrs. R. B. Eusden, second vice-president; Mrs. Edward B. Plimpton, recording secretary; Mrs. Robert L. Carroll, corresponding secretary; Mrs. C. G. Stadfield, treasurer; Mesdames M. A. Desmond, Clifton Briggs, Paul Foster, William Daniel, John Martin Askey, and H. Douglas Eaton, directors.

Marin County Auxiliary

The Woman's Auxiliary to the Marin County Medical Society held its last dinner and meeting of the year on Thursday, May 26, at the Marin Golf and Country Club.

After dinner a business meeting was held. Officers were elected for the ensuing year, and final reports of the standing committees were given.

The incoming officers were then introduced as follows: Mrs. Bernard J. Conroy, president; Mrs. Frank Lowe, first vice-president; Mrs. Cornwall C. Everman, second vice-president; Mrs. Harry N. Hensler, recording secretary; Mrs. Louis L. Robinson, treasurer.

Mrs. Thomas Gocher was presented with a silver dish, in appreciation of her splendid achievements as president.

After the meeting the members enjoyed a social evening of bridge. Mrs. Bernard J. Conroy, *Secretary.*

Sacramento County

A luncheon meeting at the Del Paso Country Club marked the closing of the season for the Woman's Auxiliary to the Sacramento County Medical Society on May 24 at 1:00 p. m.

The following officers were elected for the coming year: Mrs. George A. Spencer, president; Mrs. Norris Jones, first vice-president; Mrs. C. B. McKee, second vice-president; Mrs. Richard Schofield, treasurer; Mrs. Wayne Pollock, corresponding secretary; Mrs. Henry L. Saverien, recording secretary. Directors: Mesdames F. N. Scatena, Nathan Hale, W. J. Van Den Berg, and D. Schuyler Pulford. Directors remaining on the Board from the previous year are Mesdames Orrin Cook and Frank Krull.

Bridge was the diversion of the afternoon.

Mrs. George Briggs, chairman of the day's program, was assisted by Mesdames H. F. Schluter, Floyd Schapp, George Joyce Hall, Donald McNeil, M. J. Lipp, Orrin Cook, and Louis Jones. Mrs. H. Carmichael.

San Diego County

The Woman's Auxiliary to the San Diego County Medical Society held a delightful tea in June to welcome the incoming officers in the home of Mrs. Frank Carter on Sixth Avenue.

The new officers installed were: Mrs. C. O. Tanner, president; Mrs. R. Emerson Bond, first vice-president; Mrs. T. M. Cunningham, second vice-president; Mrs. Hiram Newton, secretary; Mrs. Alex Lesem, treasurer; Mrs. Edwin H. Kelley and Mrs. Alfred J. Cooper, members-at-large.

The delegates to the convention of the Woman's Auxiliary to the American Medical Association in San Francisco were Mesdames C. O. Tanner, Hiram Newton, and Willard H. Newman. Mrs. R. Emerson Bond.

Santa Barbara County

The Santa Barbara County Auxiliary held its meeting on April 11 in the Trustees Room of the Public Library. The following officers were elected: Mrs. H. E. Henderson, president; Mrs. Alfred Wilcox, first vice-president; Mrs. O. C. Jones, second vice-president; Mrs. Percy Gray, recording secretary; Mrs. H. C. Findlay, treasurer.

Mrs. John Van Paing reported on the school essay contest which was held from May 1 to June 1 by the pupils of the Junior High School grades of Santa Barbara County. The subject of the essay was chosen by the students from any issue of the *Hygeia* magazine in 1938. A prize of $5 was given to the winner in each school competing.

The Auxiliary voted to pay the expenses of the incoming president to the State and National conventions.

A bridge tea was held on April 21 at the Samarkand Hotel. One hundred and fifty ladies were present and they enjoyed the beautiful garden setting. Mesdames Rexwell Brown, Benjamin Bakewell, Charles Stevens, and C. T. Roome presided at the tea tables. Five lovely daughters of high school age assisted in selling candy. The leader of the Girl Scout Group sponsored by the Auxiliary was also present.

There was no meeting in May due to the State convention. Mrs. H. E. Henderson, *Publicity Chairman.*

Santa Cruz County

The Woman's Auxiliary to the Santa Cruz County Medical Society met on May 9 at the home of Mrs. H. O. Watters in Watsonville.

After a short business meeting the members enjoyed a delicious desert and played bridge during the afternoon. A delightful musical program was given by Mrs. Watters, our hostess, who played the organ, and Mrs. Sonbuck, who played the piano. Mrs. H. B. Wirt, *Secretary.*

Tulare County

The Woman's Auxiliary to the Tulare County Medical Society entertained the lawyers' wives of the county at a buffet supper and bridge party in April in Visalia.

On May 22 the Auxiliary held a dinner business meeting at Estrada's. Dr. K. Weiss and Dr. E. R. Zumwalt were elected honorary members of the Auxiliary. The program for the following year was discussed.

The address given by Dr. E. Eric Larson at the California Medical Association Convention at Pasadena was read by the president, Mrs. McClure. Highlights of the Pasadena convention were reported by Mrs. N. Miller.

Mrs. W. B. Parkinson, *Secretary.*

"Ethically, it is a fundamental fact that the state has the right to protect the lives and health of its people, and inferentially both state and national legislatures regard quarantine as a means of protecting the health of the people from infectious disease. Whether the idea of quarantine is any more than an heritage of history may best be judged by a brief reference to the fact that since the earliest times of mankind to the present day, quarantine, as a principle, has existed in different forms and shapes. The history of quarantine, as known to us, covers a span from Moses to Ellis Island. This governmental self-protection is a medical responsibility, and any hardship it may impose upon the few who seek our shores is greatly outweighed by the guardianship against disease that it gives to the nation."

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of July is as follows:

Saturday, July 2—KFI, 9:00 a. m., The Road to Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, July 7—KECA, 11:00 a. m., The Road to Health.
Saturday, July 9—KFI, 9:00 a. m., The Road to Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, July 14—KECA, 11:00 a. m., The Road to Health.
Saturday, July 16—KFI, 9:00 a. m., The Road to Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, July 21—KECA, 11:00 a. m., The Road to Health.
Saturday, July 23—KFI, 9:00 a. m., The Road to Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, July 28—KECA, 11:00 a. m., The Road to Health.
Saturday, July 30—KFI, 9:00 a. m., The Road to Health; KFAC, 11:30 a. m., Your Doctor and You.

California Northern District Medical Society: Sixty-Third Semi-Annual Meeting.—This meeting of the California Northern District Medical Society, formed in 1891 by the physicians of the Sacramento and North San Joaquin Valleys for the objects "to promote the cultivation and advancement of medical science and to encourage unity and harmony among regular practitioners of medicine," was held at Chico on April 16, with Dr. John H. White of Chico presiding.

The program was as follows:

Preanesthesia Medication, and Anesthesia from a Pharmacologist's Viewpoint, by Dr. Chauncey D. Leake, Professor of Pharmacology, University of California Medical School.

Preanesthesia Medication and Anesthesia from the Anesthetist's Experience, by William Neff, M.D., Stanford Medical School.

The importance of Psychiatry in General Medicine, by Edward W. Twitchell, M.D., San Francisco.

Migrainous Headaches, by George Wever, M.D., Stockton.

Dinner, with forty-two seated, was enjoyed. At the dinner Dr. E. W. Twitchell was honored because of the part he played in the California Northern District Medical Society. He became a member in 1900. He held various offices as follows: Vice-President in 1902; member of the Board of Censors in 1904–1908; president in 1909. He has presented ten papers before the Society, as follows: Clinical Significance of Certain Symptoms Referred to the Nervous System, in 1903; Ulcer of the Stomach—Medical Aspects, in 1904; Terminal Stages of Cardiovascular Disease, in 1905; Transverse Myelitis, in 1906; Renaissance of Physical Diagnosis, in 1907; The Clinics of Europe, in 1908; Test Meals in Diagnosis of Intestinal Disease, in 1910; Poliomyelitis in the Light of Recent Research, in 1911; Infantile Cerebral Paralysis, in 1914; Differential Diagnosis Between Encephalitis and Poliomyelitis, in 1921.

After the dinner Dr. Chauncey D. Leake gave a very stimulating and inspiring address on "California's First Great Scientist, Dr. Robert G. Blake."

The Minute Book of this organization, to a large extent in longhand, and with complete notes, and therefore a very important piece of medical history of California, is being deposited in the History Section of the State Library in Sacramento.

The secretary of the Society is Dr. John Homer Woolsey, Woodland, California.

Western Safety Conference to Meet in Los Angeles. Stop the appalling loss of life on highways. Stop the loss of life from accidental causes in the home and in industry. That is the program for the Western Safety Conference to be held in Los Angeles, September 12 to 16.

Sectional meetings will be held in connection with the Conference, covering the oil industry, aviation, motion picture, industrial safety in all such institutions, traffic, home and public safety. Resolutions will be adopted and final action will be up to the Legislative Committee.

Represented at the Conference will be the states of California, Oregon, Washington, Idaho, Montana, Wyoming, Colorado, Utah, Nevada, Arizona and New Mexico, as well as British Columbia, Alaska, Hawaii, and Lower California.

Uniform legislation will be projected for the entire territory represented at the Conference. Taking part will be safety experts in every branch of industry, automobile associations, state traffic bodies, schools, service clubs, etc. Therefore, every man, woman, and child in the eleven western states and contiguous territory will be governed by uniform safety regulations, regardless of where they reside or where they travel.

During the Conference, which it is expected will attract more than ten thousand persons, there will be an exhibit of safety appliances, many demonstrations and other features leading only to the thought of providing greater safety to mankind.

Headquarters have been established in the Ambassador Hotel, Room 75, Los Angeles.

Old-Fashioned Drinks Helpful as Cold Remedy.—The old-fashioned "rock and rye" and "hot toddy" concoctions have definite value in the treatment of the common cold, but their consumption can be and often is overdone. The judicious use of alcohol in a hot drink before going to bed, mustard baths and other remedies usually provided in the patient's self-diagnosis are all recommended. But a cold is a widely variable condition in different patients and should be treated on that basis.

These conclusions are stated in one of the most complete and exhaustive treatises on the common cold yet turned out by a western hospital or medical school. It comes from the pen of Dr. William J. Kerr, professor of medicine, and Dr. John B. Lagen, instructor in medicine in the University of California Medical School. Doctor Kerr is also president of the American College of Physicians, which recently concluded its annual meeting in New York City.

The publication, which is issued by the Oxford University Press, New York, traces the history of this bothersome complaint from the time of Hippocrates, the "Father of Medicine," who lived in the fifth century before Christ, to the present day. It also sets forth a number of misconceptions regarding the common cold, the most general of which is that it is supposed to be highly contagious. While this conclusion is held to be tenable in some respects, Doctors Kerr and Lagen present convincing evidence likewise that a cold is not easy to "catch." The possibility of contact infection in both man and monkeys is dealt with at length, and the writers conclude that the burden of proof that a cold is contagious rests upon those who make this claim. They state, however, that some highly contagious diseases, such as measles, start with sneezing, coughing and other common cold symptoms, necessitating strict precautions against spread.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

New York Polyclinic Medical School and Hospital.—The following men have been appointed to the faculty of the New York Polyclinic Medical School and Hospital: Dr. Joseph F. McCarthy, professor of urology and attending urologist; Dr. Charles J. Imperatori, professor of otolaryngology and attending otolaryngologist; Dr. Joseph E. J. King, professor of neurosurgery and attending neurosurgeon; Dr. Edward H. Dennen, professor of obstetrics and attending obstetrician.

International Physiological Congress.—The absorbing topic of poisons and other drugs in the hands of criminals is to be treated at length by Dr. Chauncey Leake, Professor of Pharmacology and Librarian of the Medical School of the University of California, at the International Physiological Congress which opens in Zurich, Switzerland, on or about August 12. Doctor Leake will tell of these substances as they are being studied in the courses in criminology at the University.

Doctor Leake has already departed for the Congress and for special studies in England, France, and Germany preceding the Zurich meeting.

Dr. James M. D. Olmsted, chairman of the Division of Physiology on the Berkeley campus of the University, is to attend the Congress also and present a paper on Light Adaptation of the Eye.

Santa Clara Controls Rabies.—Since the first of last November, in Santa Clara County, including San Jose, no less than 5,250 stray dogs have been taken into custody. During the seven months, November to May, inclusive, 301 persons were bitten by dogs. One hundred and seven animals were determined rabid by clinical and bacteriological diagnosis. A total of fifty-two persons were bitten by rabid animals, forty-eight dogs and four cats. Eighty-six exposed persons were given the Pasteur treatment for the prevention of rabies.

The program for the control of the disease has gone forward efficiently and swiftly under the direction of Dr. H. C. Brown, City Health Officer of San Jose, and Dr. C. H. Burchfiel, Health Officer of Santa Clara County. With the continued coöperation of residents, it is anticipated that rabies will be stamped out of the community within two months. These health officers and the residents of Santa Clara County, together with local newspapers, are to be congratulated upon the aggressive attack that they are making against this disastrous, but preventable disease.

International Course in Malariology.—This course will be held July 18 to September 17, 1938, in Rome, Italy, Istituto di Malariologia, Ettore Marchiafava, Policlinico Umberto 1.

Topics to be studied include the following: Hematology; Protozoölogy; Malaria Parasites and Microscopic Diagnosis; Pathology of Malaria; Clinic of Malaria; Entomology; Malaria Epidemiology; Malaria Prophylaxis; Survey of a Malarious Area.

Results of malarial treatment of mental diseases.

Lectures.

Practical work and laboratory demonstrations. Work in the wards.

Visits and residence in experimental stations and in a center of induced malaria.

Excursions:

Surroundings of Rome.
Bonification (Improvement) of the Tiber-delta.
Bonification of the Pontine Marshes.
Bonification by natural filling of the River Lamone.
Bonification of Ferrara.
Lagune of Venice.
Sardinia.
Center of Rieti.

Conditions of Admission to the Course:

The course is open exclusively to postgraduate physicians; it is held in French, but one or more interpreters are at disposal. The fee amounts to lire 1,500, and entitles to follow all practical demonstrations, as well as to free travel in connection with the excursions.

Information may be secured from the Vice-Consul for Italy at San Francisco.

Child Guidance Study at Los Angeles Summer Session.—Prominent among the educators arriving from eastern universities to join the summer session faculty of the University of California, Los Angeles campus, is Dr. Percival M. Symonds, professor of education, Teachers College, Columbia University. Doctor Symonds will conduct two courses in Child Guidance studies and will also be the leader in conferences dealing with Child Guidance and Mental Hygiene. The subject for the first conference will be "Emotional Security as the Foundation of Child Guidance." There will be four conferences and the subjects for the remaining three are "Emotional Security in the Teacher." "Studying the Emotionally Insecure Child," and "A Child Guidance Program Which Fosters Emotional Security."

American Social Hygiene Association.—In order to prevent overlapping of activities in the field of community organization for the promotion of venereal disease control, the American Society for the Control of Venereal Diseases has dissolved and amalgamated its interests with the American Social Hygiene Association, according to Dr. Russell V. Lee of Palo Alto, president of the former society.

The American Society, organized by Doctor Lee in the spring of 1937, and under the executive direction of Mr. Ray W. Smith of San Francisco, had extended its activities throughout California and other western states. The community groups and their programs developed by the Society are being taken over by the American Social Hygiene Association, which is establishing a western states division to facilitate work in this area.

Appointed to the Planning Committee of the western states division are: Dr. Ray Lyman Wilbur of Stanford University, as chairman; Dr. Thomas A. Storey, also of Stanford University; Dr. William P. Shepard, San Francisco; Dr. Lee, and Mr. Smith. Other members from other parts of California and from other western states will be added to the committee as the program is developed.

Mr. William Ford Higby will serve as director of the western states division, guiding the field service which will be offered to local community organizations. Division offices will be at 45 Second Street, San Francisco.

Greenbelt Fountain Patrons Demand Health Protection.—When the only drug store in Greenbelt, Maryland, opened for business April 21 a committee of the same consumers who coöperatively run this urban housing project had ordered, as a health and sanitary precaution,* that disposable paper cups be used in place of drinking glasses at the soda fountain to eliminate the uncertainties of dishwashing.

"This decision is popularly accepted by the consumers in what will soon become *their* consumer-coöperative drug store," said Mayor Louis Bessemer, "when control and ownership is transferred directly to store patrons." Control and ownership is held now by Consumer Distribution Corporation, a nonprofit organization that advanced $50,000 to set up and operate Greenbelt stores.

Built by the Farm Security Administration at a cost of $14,000,000 to help low-income groups in escaping high rents in Washington—which is twelve miles away—Greenbelt is expected by the end of July to be filled with the 885 families or about 3,000 persons for whom modern sanitary housing units are available.

Greenbelt claims the first drug store in the United States to be established on Rochdale coöperative principles. The central idea of "coöperation" is simply that "those who are going to use what is being sold or produced should own the store or factory and decide how the business is to be run."

Two similar "model towns"—Greenhills near Cincinnati and Greendale near Milwaukee—are said by FCA officials to be ready for occupancy, and will be operated on the same principles are Greenbelt.

The drug store is in charge of Robert Jacobsen, son of a Minneapolis druggist, who manages all the stores in Greenbelt. Gross business during the first week amounted to $831, he said, with about 60 per cent of gross business done at the fountain.

* Diseases said by health authorities to be transmissible by dirty drinking glasses include common colds, mumps, measles, tuberculosis, trench mouth and others of the upper respiratory tract, as well as syphilis.

American Congress of Physical Therapy.—The seventeenth annual scientific and clinical session of the American Congress of Physical Therapy will be held coöperatively with the twenty-second annual convention of the American Occupational Therapy Association on September 12 to 15, inclusive, at the Palmer House, Chicago. Preceding these sessions, the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians—September 7 to 10, inclusive.

The convention proper will have numerous special program features, a variety of papers and addresses, clinical conferences, round-table talks, and extensive scientific and technical exhibits.

The instruction seminar should prove of unusual interest to everyone interested in the fundamentals and in the newer advances in physical therapy. The faculty will be comprised of experienced teachers and clinicians; every subject in the physical therapy field will be covered. Information concerning the convention and the instruction seminar may be obtained by addressing The American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

Napa County Gets First Camp for Child Diabetics.—Striking proof of the progress that science has made in restoring chronically ill children to normal, healthy lives, is to be offered in the first camp for diabetic children in Western America, the plans for which have just been announced by the University of California Medical Center. The camp is to be held in Las Posados State Park, ten miles east of St. Helena in Napa county, July 17 to 31, inclusive.

Between twenty-five and thirty youngsters, more than half of them girls, will devote the two weeks to swimming, hiking and numerous other sports that appeal to the healthy youngster. As some of the children come from underprivileged groups and the expenses are somewhat higher than those of an ordinary juvenile camp, the University has been compelled to restrict the number of its little guests this year. All of the funds are being supplied by friends of the University, and the California Dietetics Association is coöperating with the University in supplying working personnel. General direction of the camp will be in the hands of Dr. Mary Olney of the Division of Pediatrics in the Medical Center.

This unique camp experiment has been conducted by the cities of New York and Cleveland with considerable success. Napa County was selected for the first western camp, because of its high standing as a healthful resort and recreation center and its proximity to San Francisco.

Ninth Annual Gorgas Essay Contest.—The Gorgas Memorial Institute of Tropical and Preventive Medicine, Incorporated, with executive offices at Washington, D. C., 1835 Eye Street, N. W., reports that Miss Frances Babin, a member of the 1938 graduating class of South Side High School, Memphis, Tennessee, received the Henry L. Doherty First National Prize of $500 for the best essay submitted in the Ninth Annual Gorgas Essay Contest on the subject, "The Achievements of William Crawford Gorgas and Their Relation to Our Health." Miss Babin was one of more than eighteen thousand junior and senior high school students throughout the United States who competed in this year's contest.

President Roosevelt presented the prize at the White House before a small group of distinguished guests, including Mrs. Henry L. Doherty, who with her husband contributes the prizes for the contest. Others present were Senator Kenneth McKellar and Congressman Walter Chandler of Tennessee; Dr. George Crile of Cleveland, President of the Gorgas Memorial Institute; Mrs. Franklin Martin, widow of the late Dr. Franklin Martin, who founded the Gorgas Memorial; Mrs. William D. Wrightson, daughter of General Gorgas; Major General C. R. Reynolds, Surgeon-General of the Army; Rear Admiral P. S. Rossiter, Surgeon-General of the Navy; Dr. Thomas Parran, Surgeon-General of the United States Public Health Service; Dr. J. W. Studebaker, United States Commissioner of Education; General M. W. Ireland, Dr. Leo S. Rowe, Mr. Robert V. Fleming, and Dr. Herbert C. Clark, Director of the Gorgas Memorial Laboratory in Panama.

Launched by the late Admiral Grayson, the Gorgas Essay Contest has been conducted annually under the direction of the late Admiral Cary T. Grayson, who served the Gorgas Memorial Institute for many years, first as president and later as chairman of the Board of Directors. Dr. George Crile, eminent surgeon and scientist, and director of the Cleveland Clinic Foundation, and long associated with the Gorgas Memorial as a director and officer, has taken over the leadership of the organization, in both its research and educational fields.

Doctor Crile announced winners of other national awards as follows: Second prize of $150, Miss Genevieve Rourk of Messmer High School, Milwaukee, Wisconsin; third prize of $50, Miss Catherine Quinn of St. Joseph's High School, Newport, Rhode Island; first honorable mention, Miss Marian Ridgeway of St. Mary's High School, Paterson, New Jersey; second honorable mention, Miss Luna Mask of Darling High School, Darling, Mississippi.

Following the White House presentation, Miss Babin was presented in a radio program in which Mrs. Henry L. Doherty, Dr. George Crile, and General M. W. Ireland also took part. The day's program was concluded by a luncheon given by Mr. and Mrs. Doherty to honor the young prize winner.

New Leg-Lengthening Procedure.—Science is able to record a new triumph over the after-effects of infantile paralysis and other disabling diseases while still seeking for the cause and the cure of these maladies. The efforts of science have now reached the point where one outstanding development, a new leg-lengthening procedure, is being detailed to the profession by faculty members of the University of California Medical School. The profession has been told that, properly applied and followed through, this procedure will restore a normal or nearly normal function of the leg without hazarding many of the complications encountered in the past.

The new procedure, developed by Dr. Roy C. Abbott, professor of orthopedic surgery, and Dr. John B. Saunders, chairman of the division of anatomy, shows how a leg shortened by certain types of disease may be lengthened by one-sixteenth of an inch a day without any discomfort or undue hazard to the patient. In a few instances the leg has been lengthened by one-eighth of an inch a day. In one case a gain of one and one-half inches in twenty days was noted.

In the operations conducted to date, not only have the shortened legs been lengthened to normal or nearly normal, but deformities of the knee and foot have been almost entirely overcome and no important changes which might be attributed to injured blood vessels or nerves have been noted. However, the fact that the leg may be lengthened in what may appear to be an unusually short time, is secondary to the fact that the new procedure achieves this added length and improved function without the hazard of complications that baffled science in the past.

New apparatus designed and made by August Kern, brace maker in the Medical School, plays an important part in the actual lengthening process.

When this apparatus is removed, the leg is immobilized in plaster of paris from the toes to the groin. Weight bearing with support is generally possible in from three to five months.

In the procedure special methods of treating bones and soft tissues have been devised, providing for retention of the maximum portion of the origin of the muscles which pass from the leg to the foot and permit them to travel downward. In like manner the blood vessels and nerves are freed from their points of fixation, but with their functions preserved, thus permitting relaxation of these structures during the lengthening process. The operation also maintains intact the nutrient vessels of the tibia or shin bone and the fibula or calf bone and allows minimum reflexion of the periosteum or bone covering. There is little disturbance of the blood supply to these bones.

Despite the success of their procedure thus far, Doctors Abbott and Saunders state that they are not yet ready to offer any final conclusions. The first operation of the type was performed by Doctor Abbott at the Shriners' Hospital for Crippled Children in St. Louis, and the results were so encouraging that the study was followed, with the results noted.

Press Clippings.—Some news items from the lay press, on matters related to medical practice, follow:

Two Hundred Millions Asked in War on Scourge

Tuberculosis Association Tells of Federal Funds Plan; Endorsed by United States Surgeon

Two hundred million dollars of federal funds for a final victorious drive against tuberculosis. . . .

That was the program advanced at the opening of the sessions of the National Tuberculosis Association's thirty-fourth annual meeting at the Biltmore Hotel yesterday.

The program, the approximate one thousand delegates were told, has been given the endorsement of Dr. Thomas Parran, Jr., United States Public Health Service Surgeon-General, and has won widespread support from tuberculosis experts throughout the country.

"The battle against tuberculosis is half won; a determined, well-financed campaign at this crucial time would spell final and decisive victory," declared Dr. J. A. Myers of Minneapolis, Minnesota, Association President.

Details Explained

Details of the proposed $200,000,000 eradication drive were presented by Homer Folks, Executive Secretary of the State Charities Aid Association of New York.

Starting in 1939, he said, 40,000 hospital beds would be at a cost of $140,000,000, including land, buildings, and equipment.

"This number of beds," he explained, "is approximately the number needed to provide two for tubercular patients for each annual death from the disease.

"The cost of each bed is estimated at $3,500; annual maintenance at $750 per capita would be $30,000,000."

The program additionally would call for x-raying of all persons having family contacts with tuberculosis, estimated at present to number 792,000, he said. This, at a cost of $7 each, would aggregate $5,544,000.—Los Angeles *Examiner*, June 21.

* * *

New White Plague Weapon Discovered*

Dr. Florence Barbara Seibert, University of Pennsylvania's woman scientist, receiver of the coveted Trudeau medal here last night, revealed her discovery of a tuberculin molecule of great importance for eradication of human tuberculosis, in an interview at the National Tuberculosis Association Convention.

Through the coöperation of Dr. J. Arthur Myers, President of the Association, Doctor Seibert, who is naturally shy and averse to limelight, told about her discovery in simplest fashion.

Said Doctor Seibert:

"My work has resulted in the complete separation of a substance as a molecule of known weight, that is chiefly and specifically responsible for the tuberculin reaction, our most basic method of diagnosing tubercular infection in human beings and animals.

Isolation Problem

"Tuberculin is the material which in small amount is injected into the skin of a person. If there is a reaction, such as reddening and swelling of the skin, the test is positive. That is, it shows that the germs of tuberculosis are or have been present in the person's body.

"Naturally, the more sensitive and certain this test is, the greater aid it renders in earliest diagnosis.

"The problem upon which I have been working for the past sixteen years or so, in collaboration with Dr. Edmund R. Long of the Henry Phipps Institute, University of Pennsylvania, was to isolate the particular substance or substances which give the tuberculin reaction.

"This year, with collaboration of Arne Tiselius and Kai O. Pedersen, at Dr. The Sevedberg's famous laboratory at Upsala, Sweden, I found that there are three different molecules of interest in tuberculin.

"Of these the most specific in action was one known by its molecular weight of 16,000. That is, it is so many times heavier than a molecule of hydrogen, the unit of molecular weight system.

"Now, the most interesting characteristic of this particular substance is that it does not produce antigenic or skin reaction by itself even though it has protein in it.

"Only if there is some tubercular infection in the person's body, the 16,000 molecule stirs up the skin reaction. Thus, using this ingredient of tuberculin in pure form it is possible to be sure that a positive reaction is due only to tuberculosis, no matter how mild, and not to the tuberculin protein itself.

"Tuberculin specimens thus analyzed, by use of ultra-centrifuging, electrophoresis and diffusion methods, were both of live germs (untreated, unheated) and dead tubercular germs. The molecule of 16,000 weight type was found in the live germs tuberculin."

A number of other molecules, ranging from 9,000 to 32,000 molecular weights, were found, but were less specific than the all important 16,000 weight molecule.—Los Angeles *Examiner*, June 21.

* By Gobind Behari Lal, International News Service Science Editor. (Copyright, 1938.)

* * *

Men of Medicine*

The sixteen trustees and officers who manage the affairs of the American Medical Association sat silent for sixteen minutes and forty seconds in a San Francisco room last week. Cause: A preview of the March of Time's monthly cinema on the topic "Men of Medicine—1938," a picture of how a young man gets his medical education and interne training, how he sets up practice in a typical small United States community, how he accidentally gets and skilfully operates on his first appendix case, how he gives his service free to the poor who attend hospital clinics.

Efforts to provide good medical care for every citizen cause acrimonious rows among doctors. March of Time has the spokesmen of conflicting schools present their diverse solutions:

Surgeon General Thomas Parran saying: "The underprivileged third of our population, when seriously ill, needs help from tax funds. The health of the people is quite properly the concern of Government."

Yale's Professor of Medicine John Punnett Peters asking that the Federal Government subsidize medical schools, hospitals, research institutions, and pay the hospital and doctor bills of the poor.

Manhattan's Sociologist Kingsley Roberts explaining a movement for coöperative medicine under which individuals and families pay dues to an organization which hires doctors to look after them.

The spokesman for the majority of the American Medical Association's 110,000 doctor-members, Dr. Morris Fishbein, arguing that "Every one should have good medical service. But we insist that the practice of medicine is a doctor's problem. The doctor is the only one entitled by training, by experience, and by law to take care of the sick. Medicine is still a profession. It must never become a business or a trade, never the subservient tool of a governmental bureaucracy."

Delighted with this cinema report not only on the United States No. 1 medical controversy but on laboratory, office, sick-room and operating room procedures, the heads of the American Medical Association broke their sixteen minute and forty second silence, voted the American Medical Association's first official endorsement of a commercial moving picture: "The Board of Trustees of the American Medical Association expresses sincere appreciation of the March of Time's 'Men of Medicine—1938' as excellent educational material revealing advance of medical science and service of medical science to the sick."—*Time*, June 20.

* * *

Care of Patients

Lutgens Outlines State's Needs

Problems of providing facilities for care of mental patients, and steps toward solution of the problems, yesterday were described by Harry Lutgens, State Director of Institutions, in a report to the American Psychiatric Association.

California, said Lutgens, has 315 mental patients per 100,000 population—higher than the national average of 269 per 100,000. Influx of families from the east is contributing to an increase of eight hundred patients per year.

Yet, California, the director added, has failed to keep up with the hospital needs of its insane charges.

A 40 per cent excess—number of patients over number of mental hospital beds—is being reduced through a $12,000,000 building program using State and Federal funds. Even when this program is completed, said Lutgens, the mental institutions will be 17 per cent overpopulated.—San Francisco *Examiner*, June 10, 1938.

* * *

Charity Racket Curb Plan Given Council

Designed to curb the activities of charity racketeers and save for worthy causes the many thousands of dollars which otherwise would fall into their hands, the draft of a proposed regulatory ordinance was presented to the city council.

* See also item in Letters Department, on page 96.

The proposed measure, prepared and adopted by the Social Service Commission, was sent to the council with the request that it be enacted.

Requiring that written permission must first be obtained before solicitations for charity funds may be begun, the proposed ordinance provides that individual solicitors must show identification cards and that promoters of charity drives must obtain a license as such, good for only a year at a time.

The method of soliciting contributions in the name of charity over the telephone, commonly used by professional campaigners, would be strictly forbidden.

Permits to solicit funds for charity's sake would be granted only by the Department of Social Service.

Applications for permits would be accompanied by a $1 filing fee and full information about the organization and purpose of the solicitation. An estimated budget and financial statement of the organization would be required.

Copies of agreements between soliciting organizations and promoters would have to be submitted to the department before a permit was issued.

While individual solicitors would be required to have identification cards, this requirement might be waived where there were more than twenty-five silicitors working without pay. However, publicity about the solicitation must inform the public of the purpose of the drive.

Permits may be revoked or suspended if material misstatements have been made in the application—Los Angeles *Herald-Express*.

* * *

County Charity Budget Is Set at $32,794,416

The Board of Supervisors of Los Angeles County has fixed the preliminary budget for the county Department of Charities, exclusive of institutions, at $32,794,416 for the fiscal year 1938-1939, an increase of $6,354,339 over the 1937-1938 budget of $26,440,077.

The preliminary budget is to be considered at public hearings, after which it may again be revised by the supervisors.

Of the new budget, however, only $12,735,228 will be raised by taxation as compared with $13,081,945 this year. This is because of State contributions and refunds in aid to the aged, indigent children and blind. The Legislature at its recent special session appropriated $6,000,000 in addition to regular contributions for the various counties, and of this amount Los Angeles County will receive $2,013,283.

Other Requests

The supervisors have not yet taken up the requests of Rex Thomson, superintendent of charities, for the county institutions such as the General Hospital, Olive View Sanatorium and the county farm. These requests total $9,050,000.

The county will also receive state and federal aid for the institutions but the amounts have not yet been broken down.

The allowances for the department as fixed today, exclusive of the institutions, and the allowances last year are as follows:

	1938-39	1937-38
Aged aid	$20,532,000	$15,850,000
Direct relief	4,883,000	4,531,604
Bureau of indigent relief	2,232,660	1,886,097
Child aid	2,177,950	1,605,688
Blind aid	1,695,242	1,406,620
Administration	1,273,564	1,160,068
Totals	$32,794,416	$26,440,077

* * *

Hospital Plan Declared Legal

Opinion Given on Leasing Proposal for Olive View

A proposal of private parties to construct a 940-bed hospital on the grounds of Olive View Sanatorium and to accept rentals from the county financed by State tuberculosis subsidies, is legal, according to an opinion on file with the supervisors.

County Counsel O'Connor said the fact that the buildings would be leased and not owned by the county will not jeopardize State subsidies.

Rentals would be paid by the county at an average cost of $8,227.50 per month for three hundred months, and would total $2,468,250 over twenty-five years, if the plan is approved.

Superintendent of Charities Thomson estimates that the county would receive about $130,000 additional in State subsidies if the new facilities are provided.

Reduction in gross cost per patient per day from $3.67 in 1930-31 to $2.75 last fiscal year, and an increase of 248 patients in three years for a total of 1,731, were shown in the annual report of Olive View Sanatorium just released.

LETTERS

Concerning film narrative, "Men of Medicine: 1938."*

To the Editor:—At the opening session of the American Medical Association convention in San Francisco on June 12, the delegates will attend a preview of "Men of Medicine: 1938," a twenty-minute March of Time film narrative on medical science's immeasurable contribution to American life. Immediately thereafter it will be released to 11,374 theaters throughout the world, and will be seen by an estimated United States audience of 24,000,000 people.

This is the first authentic motion picture for theatrical distribution produced with the unrestricted coöperation of the American Medical Association, the United States Public Health Service, and the medical departments of the United States Army and Navy. Already those doctors who have seen the picture in our projection room have been unanimous in their praise and approval not only of the picture's accuracy but of its potential value in bringing essential medical knowledge to the public.

No film before has told the story of the sixty-nine great medical schools of the United States, the ten years of training which each doctor must undergo at a cost of nearly $15,000, the fact that United States doctors, in a time of depression, are today contributing $1,000,000 daily in free clinical services for the poor and distressed.

Coming at a time when actually 40,000 or more American doctors earn less than $2,000 annually, when new plans for coöperative medicine, group hospitalization, health and old-age insurance and government aid are discussed on every hand, this important record of the practice of medicine, ranging from the duties of the small-town country doctor to great laboratories of internationally known institutions, constitutes not only an important document of medical progress but an informative and educational record which every layman should see.

I truly hope that unless you are present at the San Francisco preview, you yourself will see it in your local theater and will feel as we do that it is a document of such value that every effort should be made to assure the widest possible public audience. We would be happy indeed to coöperate in any plans which you could suggest in your own field of activity, and hope that we shall hear from you in this important matter.

Sincerely yours,

Louis de Rochemont,
Producer and Publisher.

Concerning educational leaflet on syphilis.

(COPY)

Treasury Department
U. S. Public Health Service
Washington

To the Editor:—Foremost among the problems which face the physician in his treatment of syphilis is that of keeping the patient in treatment. When skin lesions disappear and the patient "feels fine" he is apt to disregard the doctor's advice and lapse.

The first line of defense against such lapses is education. When the patient thoroughly understands his disease—as the diabetic is taught the idiosyncrasies of his diet—he may be more often counted upon to continue through that long course of seventy injections recommended by the Coöperative Clinical Group.

The little folder which we enclose was prepared with the physician's problem in mind.

It is clear. We tried it on patients at a city clinic, on a workers' education group, on a grade-school age group, on college students. We revised it until it answered their questions in a way they would understand. Then we added the pictures to help drive home the story.

It is inexpensive. It may be secured from the Superintendent of Documents in Washington, D. C., for $1 per 100 copies. In smaller quantities, five cents each. But give

* See also item in News department, under Press Clippings, on page 95; and item on page 3.

one to each patient on the occasion of his first visit, and it should save many cases for many treatments. In replying, address the Surgeon-General, U. S. Public Health Service.

Sincerely yours,

R. A. Vonderlehr,
Assistant Surgeon General,
Division of Venereal Diseases.

Concerning new edition of "New and Nonofficial Remedies."

(COPY)

American Medical Association
Council on Pharmacy and Chemistry

Chicago, June 6, 1938.

To the Editor:—We are forwarding a copy of "New and Nonofficial Remedies," 1938, and a copy of the "Annual Reports of the Council on Pharmacy and Chemistry," 1937, with the compliments of the Council. We trust that these books will be of help to you in your editorial work.

A review of the new edition of "New and Nonofficial Remedies" and of the Council reports in your journal will be appreciated.*

Yours sincerely,

Paul Nicholas Leech,
Secretary, Council on Pharmacy and Chemistry.

Concerning proposed State Humane Pound Law.

OFFICE OF
Director of Public Health
City and County of San Francisco

(COPY)

San Francisco, June 16, 1938.

To the Editor:—For your information I am enclosing copies of correspondence which is self-explanatory. This is sent for your information.

Sincerely,

J. C. Geiger, M.D., *Director.*

* * *

OFFICE OF
Director of Public Health
City and County of San Francisco

(COPY)

June 15, 1938.

Mr. V. Collins, Secretary,
General Volunteer Campaign Committee,
For State Humane Pound Act,
406 Sutter Street, San Francisco.

My Dear Mr. Collins:

I am very much interested in your letter of June 11, addressed to the members of the Woman's Auxiliary to the American Medical Association, in convention now assembled in San Francisco.

Any letter or expression purporting that I am opposed to the use of impounded dogs is a curiosity, indeed, to me. I recall very distinctly several years ago of having made a recommendation at the time a new pound ordinance was under consideration before the Board of Supervisors of the City and County of San Francisco to allocate a number of the animals collected by the pound to the universities for experimental purposes. This recommendation subjected me to extraordinary criticism and threats, and the resultant hearings before the Board of Supervisors were near-riots.

I have gone through our correspondence that occurred at that time with Mr. A. J. Gallagher, a Supervisor of the City and County of San Francisco, who handled the pound ordinance. I am attaching a copy of my letter of August 31, 1932, which was in answer to an attempt by someone to include in this ordinance a section granting the power of inspection of various laboratories to certain individuals connected with the pound. I think this letter, especially the third paragraph on page two, will definitely indicate to you my feelings accordingly and why my original request for allocation of these animals to research institutions was withdrawn.

In conclusion, I hope in the future you will quote me or the circumstances correctly. Furthermore, I desire to point out that the so-called humane pound law, if passed, would be a detriment to the public health, to scientific medicine and to the control of disease, whether in humans or animals.

Sincerely,

J. C. Geiger, M.D., *Director.*

* * *

(COPY)

August 31, 1932.

Mr. Andrew J. Gallagher,
Supervisor, City Hall,
San Francisco, California.

My dear Mr. Gallagher:

With reference to our conversation at the Board of Supervisors as to Article 10 on the calendar of the Board for the meetings of August 29, when there was some discussion as to Section 27 of an ordinance providing a public pound, it is my distinct understanding that you requested an opinion from me as an individual as well as the Director of Public Health accordingly. A previously arranged trip with the Public Utilities Commission to Hetch Hetchy, however, will preclude my being present when called again. Likewise, because of the gratuitous insults directed toward me at a previous meeting on animal experimentation perhaps it is just as well that I cannot be present, therefore my opinion is given in writing.

There are two universities and one research institution that may be involved in animal experimentation for scientific purposes in San Francisco, namely, the Medical School of the University of California, Stanford University School of Medicine, and the Hooper Foundation for Medical Reseach of the University of California.

It is the writer's opinion that to pass Section 27 would grant or serve as an excuse, to many persons, either officially or otherwise, to act as inspectors and annoy legitimate research workers by requesting, and perhaps demanding, search for certain dogs or insisting that the dogs are in the institutions. Moreover, I consider this section entirely antimedical and, as an individual and as the Department of Public Health, we vehemently protest it. Furthermore, if anything antimedical inimical to animal experimentation upon which much of our modern public health depends comes from a committee officially dedicated to health it would appear to be a travesty on health.

May I point out to you that animal experimentation as a means of promoting human and animal welfare has recently received the sanction of two tribunals of great importance, one in the United States and the other in England. Both decisions tend to brighten the outlook for the protection of medical science against the perpetual warfare that threatens it through bequests for the support in perpetuity of organizations opposed to experiments on animals.

In the American case (Pennsylvania Company for Insurance on Lives and Granting of Annuities, executor of the estate of A. Sidney Logan, deceased, petitioner vs. Commissioner of Internal Revenue, respondent, 25 B. T. A.) the United States Board of Tax Appeals held that a bequest to a society organized for the "total abolition of all vivisection experiments on animals and other experiments of a painful nature" was not a bequest to a corporation organized and operated exclusively for the prevention of cruelty to animals, and that, therefore, the amount of such a bequest could not be deducted from the principal of an estate in computing the federal estate tax. The decision of the Court of Appeal in the English case (*In re Grove-Grady; In re Plowden* vs. *Lawrence,* 98 L. J., Chr. 261 (1920) 1 Ch. 557, the Law Journal, 71:329 (May 9), 1931, raised the question whether, "in the light of later knowledge in regard to the benefits accruing to mankind for vivisection," bequests designed to hinder and prevent vivi-

* Book reviews appear in this issue in front advertising section, as noted in front cover index, under Miscellany.

section would today be regarded as charitable bequests. On appeal, the House of Lords forbade the use for antivivisection propaganda of any part of the legacy concerning which the question was raised. The English decision is of only persuasive influence in the United States, but the changing view suggested by it was with respect to bequests to create trusts to carry on activities against animal experimentation if of vital importance. Unless such trusts can be shown to be charitable in character, they cannot be made to operate in perpetuity.

The decision of the United States Board of Tax Appeals is available. It is a remarkable statement of the value of experimentation, all the more cogent because of the dispassionate, nonmedical, judicial source from which it emanated. The executor of the estate against whom the decision was rendered may appeal to the courts for relief, but a decision by an appellate court would almost certainly do nothing more than strengthen the defense of animal experimentation that the decision affords.

*These cases should be read by all members of your committee, and it is not beyond the writer's belief to assume that the members have not read the communications to the committee from one hundred and fifty leading scientists for animal experimentation. Certainly, the weight of the evidence proves that animal experimentation is of benefit to mankind—to animals, too, for that matter. If animal experimentation is for the benefit of mankind and of animals, bequests to hinder or prevent such experimentation obviously cannot be for the benefit of mankind, and bequests to accomplish that end cannot be charitable bequests. It may be argued that such reasoning is begging the question; that it assumes that the benefits that have been and are being derived from animal experimentation are at best not sufficient to offset the alleged cruelty to such experimentation. The answer is that there is no cruelty associated with animal experimentation that is not within the research of the ordinary laws for the prevention of cruelty to animals. The fact that prosecutions are cruelty in connection with animal experimentation are practically unheard of, despite the vigilance of antivivisectionists, is evidence of the absence of such cruelty. The trouble with the antivivisectionists' reasoning lies in the fact that they fail to distinguish between pain and cruelty and set up their own standards of cruelty, which are not the standards of the law nor the standards of the community.

Probably these two legal decisions represent the general trend of mature and cultured thought on the subject of animal experimentation, when uninfluenced by lurid appeals to the imagination and by appeals to self-interest. Both decisions were based on the orderly presentation of legal evidence, not on such clamorous, virulent, emotional speechmaking as commonly fill the air when animal experimentation is discussed before legislative committees. If such committees would limit the presentation of evidence in the same way that it is limited by the courts, their decisions could be relied on to be as sound as the recent decisions of the United States Board of Tax Appeals and the English House of Lords and Court of Appeals. Doubtless, however, in the United States, at least, the political aspects of hearings before legislative committees and the absence of well-defined rules of evidence and procedure will continue too often to render orderly judgment impossible.

Finally, in protesting, may I point out to you and to your committee that, in my original recommendation to the ordinance, several hundred of the many thousand dogs poisoned in the pound each year could be allocated for scientific medical research without offense to the intelligent individuals, it was withdrawn because competent legal advice plainly indicated that neither the Board of Supervisors nor the Department of Public Health had any right in the premises of the Public Pound, as it is a quasi-public institution to which funds are allocated but under a private board privately controlled.

I hope the committee will give due consideration to this protest and, therefore, strike out Section 27 from this ordinance.

Sincerely,

J. C. Geiger, M.D., *Director*,

* This is the paragraph previously referred to.

Concerning a "syndicated article" on rabies.

County of Los Angeles
Department of Public Health

Los Angeles, June 7, 1938.

To the Editor:—I am also attaching a copy of letter I wrote to the editor of the *Times* regarding an article by Doctor Brady on rabies which appeared in that paper, and reply of the editor. I thought you would be interested in this, as the subject of rabies seems to be a special "pet" of Doctor Brady's.

Very truly yours,

J. L. Pomeroy, M. D.,
Los Angeles County Health Officer.

* * *

(copy)

May 31, 1938.

The Editor,
Los Angeles Times,
First and Spring Streets,
Los Angeles, California.
Dear Sir:

My attention has been called to one of the syndicated articles of Dr. William Brady in one of your columns on April 28, 1938, concerning rabies.

I desire most emphatically to protest the statements of this article, particularly Doctor Brady's direct statement that the Health Department works up a rabies scare to gain publicity for the Department and the insinuation that this publicity is to obtain larger appropriations, etc. As a matter of fact, appropriations made to public health are not based on the number of articles published in any newspaper concerning this disease or any other disease. If this were true we would have all the money we could possibly spend in fighting venereal diseases and tuberculosis which are and have been thoroughly publicized for a considerable length of time. On the contrary, the rabies situation has actually diverted a considerable sum of money from other functions in the Department where it is badly needed, and because of the controversial nature of the work we would be very happy to see rabies disappear from this county. It is a severe liability instead of an asset to the Department. Furthermore, it is a severe liability to the county as a whole because of the unfavorable criticism from cities such as San Francisco, where rabies is practically unknown. Articles such as Doctor Brady's, further, are a total liability so far as the reputation of this county is concerned.

The further statement in this article that Pasteur virus causes some of the grave effects health authorities and some doctors describe in man and that Doctor Brady recommends antitetanus serum in lieu of Pasteur treatment would be ridiculous if it were not for the fact that many people will be misguided and endanger their lives by such treatment. We strongly urge people to ignore such advice. We most strongly insist that every dog bite by an animal suspected of having rabies should be cauterized by a reputable physician, or by a doctor in our Health Centers, with fuming nitric acid, the only substance recognized at the present as being destructive of the rabies virus. Further, the patient should take the Pasteur treatment if it is proved that the dog has rabies.

During the past seventeen months there have occurred in this county, including Los Angeles City, 2,306 cases of positive rabies, including all animals. If these animals suffer from tetanus, as Doctor Brady implies, it is remarkable that no authority of any standing, state, city, or county, has made such a finding. It is remarkable, too, that the many hundreds of human beings who have been treated with the Pasteur treatment all escaped, with but two exceptions, developing the disease. In several instances, valuable lower animals were also saved by the Pasteur treatment. Not a single case of tetanus occurred!

Articles such as contributed by Dr. William Brady on a matter fraught with grave danger to human life should represent established, scientific medical opinion and not armchair speculation. The public is at least entitled to representative medical opinion.

Very truly yours,

J. L. Pomeroy, M. D.,
Los Angeles County Health Officer.

Los Angeles Times

June 3, 1938.

Dr. J. L. Pomeroy,
Health Officer,
Los Angeles, California.

Dear Doctor Pomeroy:

This will acknowledge receipt of your letter taking exception to the remarks of Doctor Brady in his column of April 28, 1938.

As you know, Doctor Brady's column is a syndicated feature and the opinions expressed therein are Doctor Brady's and not necessarily those of the *Times*.

I shall be glad to forward your letter to Doctor Brady.

Very truly yours,
The Los Angeles Times.
L. D. Hotchkiss, *Managing Editor.*

MEDICAL JURISPRUDENCE †

By Hartley F. Peart, Esq.
San Francisco

Malpractice: Proof of Negligence of a Physician and Surgeon by Testimony Other Than Expert Testimony

The general rule with respect to proof of negligence against a physician and surgeon is that the acts and conduct which may constitute negligence on the part of a physician or surgeon in the performance of a professional service are matters so peculiarly within the knowledge of physicians and surgeons and so far beyond the knowledge of the average man that proof of negligent acts and conduct can only be made by physicians and surgeons. Such testimony of physicians and surgeons is called expert testimony and the evidence which they adduce concerning the propriety of the defendant's acts and conduct is called "opinion evidence."

In rare instances courts have held, under the facts of a particular case, that the act or omission of a physician and surgeon or other professional person was so obviously negligent that the matter could reasonably be said to be within the knowledge of the average man and that as a consequence expert testimony was not necessary. A recent California case relies upon this exception to the general rule requiring proof of negligence against a physician and surgeon to be by means of expert testimony only. In *Thomsen* vs. *Burgeson*, 93 Cal. App. Dec. 394, decided May 4, 1938, the alleged facts were as follows:

Defendant performed a tonsillectomy upon plaintiff who, at the time, was two years and eight months of age and removed the uvula and a portion of the soft palate and injured the anterior and posterior pillars of the plaintiff's throat. Plaintiff's complaint alleged negligence in the removal of the uvula and a portion of the soft palate and in the injury to the anterior and posterior pillars of the throat, and, in addition, alleged that a trespass had been committed in that defendant "without the consent of plaintiff or his parents, removed said uvula and portion of the soft palate."

At the trial the plaintiff did not produce any expert testimony in support of the allegations of his complaint. Defendant thereupon contended that there was nothing to go before the jury, because, in the absence of expert testimony concerning the propriety of the defendant's act, the jury had no standard by which it could judge defendant's conduct.

The Court, however, held as follows:

Without going into further detail, it is sufficient to state that the evidence reveals a situation which clearly takes the case at bar out of that class of cases in connection with which expert testimony is indispensable. . . . The rule has been declared as follows: "It is equally true that cases which depend upon knowledge of the scientific effects of medicine, or the result of surgery, must ordinarily be established by expert testimony of physicians and surgeons. This rule, however, applies only to such facts as are peculiarly within the knowledge of such professional experts and not to facts which may be ascertained by the ordinary use of the senses of a nonexpert." So far as an understanding of the operation involved herein is concerned, it would appear to be a matter of common knowledge that the removal of a portion of the soft palate and of the uvula is no part of a tonsillectomy. The location of the tonsils is a matter which is easily observable to anyone, and the location and functions of the uvula and soft palate are matters of common knowledge, and of which the courts can take judicial notice. Therefore, there was evidence in the record, at the time the motion for a directed verdict was granted, sufficient to support a verdict for plaintiff had such verdict been returned.

There can be no quarrel with the rule of law which allows an exception to the general rule requiring proof of negligence against a physician and surgeon to be by means of expert testimony and by no other, in those instances where the alleged negligent act or omission is obviously negligent or may clearly be said to be of a wilful nature. Examples of cases in which expert testimony has been said to be unnecessary are: Where a dentist leaves a decayed tooth in the jaw of his patient and removes one which is sound and serviceable, and where a surgeon undertakes to stitch a wound on the patient's scalp and while doing so thrusts his needle into the patient's eye.

However, conceding the rule to be a sound one, the question arises, should it have been applied under the facts of the case under discussion? It may well be disputed that the alleged acts of the defendant in *Thomsen* vs. *Burgeson* were such that it could be said to be "a matter of common knowledge" that they would not have occurred if due care had been used. Is it true that "the location of the tonsils is a matter which is easily observable to anyone"? It would seem to be fairly clear that the tonsils cannot be located "easily" by anyone. It would also seem to be clear that the "location and functions of the uvula and soft palate" are not matters of common knowledge. Therefore, it is believed that the District Court of Appeal erred in applying to the facts before it the rule dispensing with the requirement of expert testimony. After all, if the alleged negligence was as clear-cut as the Court believed, there would be no difficulty in proving that fact.

† Editor's Note.—This department of California and Western Medicine, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

SPECIAL ARTICLES

CALIFORNIA MEDICAL ASSOCIATION

Sixty-Seventh Annual Session, Pasadena* May 9–12, 1938

California Medical Association Opens Four-Day Session

Speakers Tell Change in Public Attitude

Maintaining that "the one outstanding achievement of the twentieth century, so far as medicine is concerned, is the change in attitude toward venereal diseases on the part of the laity and the medical profession," Dr. Morrow of San Francisco, President of the California Medical Association, opened the organization's sixty-seventh annual convention here today.

Expect Two Thousand Delegates

Eight hundred delegates were registered this afternoon, the number being swelled rapidly as newcomers arrived at the Hotel Huntington, convention headquarters. It is expected that two thousand will be in attendance by the time the conclave ends on Thursday.

Dr. George H. Kress, President of the Los Angeles County Medical Association, gave a short address of welcome to the delegates, and Dr. F. C. Warnshuis, Secretary of the State Association, announced convention highlights.

The president's dinner is scheduled to take place tomorrow night at the Hotel Huntington, and President-Elect Dr. William W. Roblee of Riverside will take office on Wednesday.

Scientific section meetings were held this afternoon, with more such sessions scattered throughout the convention.

The entire patio of the hotel has been turned into a regular "circus" tent, with more than fifty elaborate exhibits being kept open day and night.

Doctor Morrow's address, a review of the medical world's stand in the fight against venereal diseases, was the feature of the morning session. . . . —Pasadena *Star-News*, May 9.

* Paragraphs here printed have been taken from press reports.

Wives Visit Film Studios as Doctors Open Sessions

Convention of Woman's Auxiliary Will Get Under Way at Vista Tomorrow

Forming an advance guard for the delegation to the ninth annual convention of the Woman's Auxiliary to the California Medical Association, two hundred doctors' wives registered at the Hotel Huntington today.

A pre-convention board meeting, held in the Crystal Room, was presided over by the State president, Mrs. Hobart Rogers of Oakland, and after that the feminine contingent attended the general session of the sixty-seventh annual State Medical Association convention in the ballroom.

An informal luncheon, and then almost the entire delegation of women were off in busses for the motion picture studios of Hollywood, expecting to be back tonight to dine with their husbands, and to hold a reception and musicale at nine o'clock in the hotel for the wife of Dr. Howard Morrow, outgoing State Association president.

The Woman's Auxiliary will really get into action tomorrow morning at 9:30 o'clock at the Hotel Vista del Arroyo, when it conducts its first general meeting, with Mrs. Rogers presiding.

Luncheon at the Vista will follow the meeting, and tomorrow afternoon there will be sight-seeing trips. The women, of course, will attend the president's dinner and dance the Huntington tomorrow night. They will wind up their convention on Wednesday, with a post-convention state board meeting in the afternoon.

The Credentials and Registration committees worked fast and furiously this morning on the mezzanine floor at the Huntington. Mrs. Charles C. Hall, Chairman, was assisted by the local chairman, Mrs. Mark Albert Glaser.

Mrs. Arthur T. Newcomb of Pasadena, General Chairman, is being assisted by many other local doctors' wives on the various committees.

Charming young hostesses making themselves generally useful at the convention are daughters of Auxiliary members, and include a number of Pasadena girls.

The incoming State president, Mrs. Clifford Andrews Wright, will be honored at luncheon on Wednesday at the Vista, and the past State presidents also will be guests of honor.

Members of the State Advisory Board will be honored at a luncheon at the Vista tomorrow, when presentation of the Doane membership trophy will be made by Mrs. William Henry Sargent of Oakland.

Dr. Lowell S. Goin of Los Angeles, will speak at the luncheon on "Crux Medicorum." — Pasadena *Star-News*, May 9.

AMERICAN MEDICAL ASSOCIATION

Eighty-Ninth Annual Session, San Francisco* June 14–17, 1938

Medical Leaders Here, Map Study of Physical, Social Ills

Vanguard of Doctors Arrives in San Francisco

America's men of medicine, in whose skilled hands is held the health of the nation, yesterday converged upon San Francisco to focus their combined attention on both scientific and social problems.

A few minutes after he arrived at the Sir Francis Drake Hotel, Dr. Morris Fishbein, editor of the Journal of the American Medical Association, said that the Association will participate July 18, 19, and 20 in the Washington conference on a national health program.

He added the announcement that the American Medical Association has invited Josephine Roche, under whose leadership the Washington conference will take place, to address the convention here Tuesday afternoon. Miss Roche, former Assistant Secretary of the Treasury, in charge of public health, accepted the invitation and will either appear personally or send a representative to speak for her.

"Miss Roche has been asked to explain her program for national health service distribution, a program she is working out from a social security point of view," Doctor Fishbein said.

Sees Agreement

A vast majority of the nation's doctors oppose any form of "social medicine," which would interpose a federal bureaucracy between physician and patient. The medical men recognize as an economic problem the distribution of their services. Doctor Fishbein's announcement of Miss Roche's appearance immediately focused convention attention on the profession's great issue of "tax paid" medicine.

Doctor Fishbein indicated his belief that "a rapprochement is in sight" between the profession and the Government.

Leaders Arrive

Scientifically, said the veteran spokesman for the American Medical Association, the convention will bring forward for discussion more than 350 reports, representing the advance of a year in medicine. And a great exhibit in the Civic Center will present 150 doctors demonstrating the techniques and facilities of the modern science of healing.

"This national convention will be a demonstration that medicine never stands still, always advances," said Doctor Fishbein. "We can see in the future, for example, the complete eradication of some of the deadly diseases."

Ready to work, to renew friendships, and to see San Francisco, the leaders of the American Medical Association arrived yesterday, preceding the host of 7,000 doctors who will participate in the convention, opening formally on Monday.

In the vanguard were: Dr. J. H. Upham of Columbus, Ohio, president of the Association; Dr. Irvin Abell of Louisville, Kentucky, president-elect; Dr. Olin West, secretary; Dr. A. W. Booth of Elmira, New York, president of the board of trustees; Dr. C. B. Wright of Minneapolis, trustee; Dr. H. H. Shoulders of Nashville, Tennessee, vice-speaker of the House of Delegates; and a score of other distinguished men.

Many were accompanied by their families. With Doctor Fishbein were Mrs. Fishbein; their daughter, Marjorie; and son, Justin.

A western welcome ushered in the American Medical Association. At Ogden the Southern Pacific's "Forty-niner" was boarded by Oakland doctors, with an orchestra and entertainment. At Berkeley, Dr. Frederick C. Warnshuis of San Francisco, for the California Medical Association, welcomed the arrivals. The doctors were driven to their Sir Francis Drake Hotel headquarters, then returned to the East Bay.

They visited Diablo Country Club and were entertained at the Claremont Country Club last night by the Alameda Medical Society.

San Francisco already was the world's medical center when the American Medical Association leaders arrived. The American Psychiatric Association was completing its week of work at the Fairmont Hotel. Across the street, at the Mark Hopkins, the American Ophthalmological Society was conducting its seventy-fourth annual convention.

Other Sessions

The American Heart Association was in session at the Sir Francis Drake. With their microscopes, 150 men and women were at the Palace Hotel for the meeting of the American Society of Clinical Pathologists. The Association for the Study of Allergy met at the Empire Hotel.

And at Del Monte the American Academy of Pediatrics and the American Dermatological Association convened. Other medical groups will meet simultaneously with the American Medical Association in San Francisco next week.— San Francisco *Examiner*, June 11.

Five Thousand Physicians Throng San Francisco for Medical Meeting

Convention Opening Tomorrow to Review Progress of Medicine During Past Year

As one doctor to another, leading medicos of the nation tomorrow will open discussions on humanity's ills and the progress medicine has made the past year in making a happier and healthier life for mankind.

Sessions of the American Medical Association's eighty-ninth annual convention continue through Friday with approximately five thousand members in attendance. Their discussions, scientific and technical exhibits focus the attention of the medical world on San Francisco.

Three major types of activity are included in the program arranged at a preconvention meeting of Association officers yesterday. These include scientific and technical exhibits, scientific meetings in which hundreds of papers describing the year's advances in medicine will be heard and sessions of the House of Delegates, in which are determined the policies of organized medicine.

Scientific Exhibits

Scientific and technical exhibits will be set forth in the Civic Auditorium; scientific meetings will be held in adjacent buildings in the Civic Center and the House of Delegates meeting in the Sir Francis Drake Hotel.

The scientific exhibit consists of more than 150 displays prepared by leading investigators to demonstrate the prog-

* Paragraphs here printed have been taken from press reports.

ress of medicine since the Atlantic City meeting last year. They give a comprehensive picture of the advances in medicine, including a way to keep human marrow alive outside the body so scientists can study the action on it of such drugs as sulfanilamid; reports on the new treatments of mental disease by insulin and metrazol shock; a new design for an oxygen tent that is easily portable; and a report on the value of a nasal spray for protection against infantile paralysis.

Meetings Slated

The House of Delegates, made up of about 175 delegates, elected by state and territorial medical associations, will hold meetings tomorrow, Tuesday, and Thursday. General scientific meetings are scheduled during the first two days of the convention.

Highlighting tomorrow's program will be an address by Dr. Anton J. Carlson, professor of physiology, University of Chicago, on "Animal Experimentation in Medicine." Specialists are to discuss other subjects, including the fever treatment of syphilis, wounds of the heart, brain tumors, mental hygiene, eczema, Bright's disease, and hemorrhage of the stomach.

The one general meeting of the convention is scheduled for Tuesday night in the Opera House, where Mayor Rossi, city and state medical leaders will welcome the visiting physicians to San Francisco. Dr. Irvin Abell, Louisville, Kentucky, will be inducted into the presidency on the occasion, succeeding Dr. John H. P. Upham, Columbus, Ohio, the retiring president.

Other Conventions

Other national medical associations are holding meetings in San Francisco this week. They include: the American Academy of Tuberculosis, Friday and Saturday; the American Medical Women's Association, Sunday, Monday, and Tuesday; the American Radium Society, tomorrow and Tuesday; the American Rheumatism Association, tomorrow; the Association for the Study of Internal Secretions, tomorrow and Tuesday.

In conjunction with the American Medical Association convention, the Woman's Auxiliary to the Association will hold its sixteenth annual convention. Registration opens today, with Mrs. Harry O. Hund as chairman. Mrs. Augustus S. Kech, National President, is to preside at a preconvention meeting tomorrow in the Fairmont Hotel.—San Francisco *Chronicle*, June 12.

* * *

Seven Thousand Mercy Men Here for Medical Meet

Eyes of the medical world focus on San Francisco today as seven thousand of the country's leading physicians open the eighty-ninth annual convention of the American Medical Association.

Concerned with advances in scientific medicine, the doctors will meet for five days to exchange medical research findings and consider the conclusions of members of their profession in diagnosis and treatment.

Activities of the attending physicians will be centered in the reading of more than 300 reports, examination of scientific and associated exhibits and drawing up of organized medicine's policies.

Registration of members starts at 8:30 a. m. in the Civic Auditorium and will continue through the convention.

The House of Delegates, made up of 175 delegates elected by state and territorial medical associations, will hold its first meeting at 10 o'clock in the Sir Francis Drake Hotel.

The 150 scientific exhibits will be opened at noon on the first and second floors of the Civic Auditorium. Sponsors of the exhibits will explain their developments.

Science Sessions

In the Memorial Opera House, scientific meetings will be held during the afternoon. Included in the discussions will be animal experimentation in medicine, antepartum care, ophthalmoscopic signs of constitutional disease, mental hygiene as related to the psychoneuroses, and the relation of photography to medicine.

At the opening meeting of the House of Delegates today reports of the officers will be made. New business will be introduced in the form of resolutions from the floor, and the winner of the special award for achievement in the art and science of medicine will be selected by the group. The session will end at noon.

Reference Reports

The House of Delegates will meet again tomorrow morning, when reference committees will bring in their reports.

There will be an executive session of the House Tuesday afternoon. Final meeting of the House will be held Thursday afternoon, when officers will be elected and next year's meeting place selected.

The seven California delegates to the House are Dr. Elbridge J. Best, San Francisco; Dr. Charles A. Dukes, Oakland; Dr. Robert A. Peers, Colfax; Dr. Lyell C. Kinney, San Diego; Dr. Edward M. Pallette, Dr. William R. Molony, Sr., and J. P. Nuttall, Santa Monica.

The vital question of socialized medicine may be discussed at the general meeting of the convention tomorrow evening at eight o'clock in the Memorial Opera House, it was indicated. At that time Dr. Irvin Abell of Louisville, Kentucky, President, will touch on a tax-paid medical system.

At the executive session of the House tomorrow afternoon, Dr. Warren Draper, Assistant United States Surgeon-General and Public Health Association delegate to the convention, will present the Government's views on the controversial subject, it was announced.

Held State Problem

As to any discussion of the medical care of California's migratory workers, Dr. Olin West, secretary and general manager of the Association, indicated there was none planned. "That is a state problem," Doctor West said.

The convention may also hear a report from the "Committee of 430," a group within the membership which last November advocated the use of public funds to finance preventive medicine, for medical treatment of the indigent, and for medical research, voluntary hospitals, research and consultative service.

When the report of the Committee of 430 was first published it was regarded in some quarters as a revolt against the Association which last year sidetracked a proposal from the New York Medical Society advocating national indorsement of similar theories.

Awards Wednesday

Awards of gold, silver, and bronze medals will be made Wednesday afternoon for the best scientific exhibits.

Other national medical associations holding meetings today and Tuesday include: The American Medical Women's Association, the American Radium Society, the American Rheumatism Association, and the Association for the Study of Internal Secretions.

The Woman's Auxiliary to the American Medical Association is holding its sixteenth annual convention in conjunction with that of the Association. Mrs. Augustus S. Kech, National President, will preside at a preconvention meeting today in the Fairmont Hotel. Registration opened yesterday.—San Francisco *Chronicle*, June 13.

* * *

Doctors Open Fight Here on State Control

Regimentation of Healing Profession by Government Scored in American Medical Association Session

The American Medical Association, meeting here in its eighty-ninth annual convention, yesterday lost no time in coming to grips with its major present problem—the threat of state socialized "tax paid" medicine.

Regimentation of the healing profession under paternalistic governmental auspices was hit, and hit hard, in speech, report, and resolution at the very first session of the House of Delegates, supreme governing body of the Association, meeting at the Hotel Sir Francis Drake.

Incoming and outgoing presidents of the Association challenged all attempts to wrest from the profession control over its own services, the Association's Board of Trustees hit "recent agitation for socialization of medicine by some grandiose scheme."

Resistance Told

The profession "resists efforts and proposals that would include and regiment its service under lay control," declared Dr. Irvin Abell, incoming president.

There is a "manifest determination to preserve the individual type of medical practice as that best suited to this country and to maintain that practice on the highest possible plane," declared Dr. J. H. J. Upham, retiring president.

Yet, underlying the Association's unyielding opposition to surrendering the care of the nation's sick to bureaucratic administration was keen recognition of the profession's obligation to share in the economic adjustments of the nation.

The profession has an "aroused consciousness" of the part it should play in solving "the present economic problems in relation to illness," said Doctor Upham.

"Fully Cognizant"

"The medical profession is fully cognizant of the social and economic needs that lie so heavily on the indigent and low-income groups," said Doctor Abell, pledging the profession to its share in their rehabilitation.

Both officers and the board of trustees pointed to the Association's current nation-wide survey of medical needs, and predicted that when completed it will point the logical way to solution of many grave medical problems.

The Federal Government's case for some degree of medical socialization will be laid before the delegates at what is expected to be a spectacular executive session this after-

noon. The Government's representative will be Dr. Warren Draper, Assistant Surgeon-General of the United States Public Health Service.

Tenor of Message

"If you oppose state socialization of medicine, what do you propose as its alternative to provide adequate medical care for those groups of the population which are not now receiving it?" is expected to be the tenor of Doctor Draper's message of the Association.

The delegates did not concern themselves exclusively with vital matters of policy yesterday. They took time out to select for a newly created honor, the distinguished service medal of the American Medical Association, Dr. Rudolph Matas of New Orleans.

With reports of committees and speeches of officers out of the way, the delegates exercised their democratic prerogative of introducing resolutions affecting conduct of the Association's affairs and on matters affecting medical practice.

Notable among them was a resolution submitted by Michigan delegates providing for creation of a council on public relations and employment of qualified public relations counsel to represent organized medicine before the public.

Move to Supplant

The resolution was interpreted in some quarters as an effort to supplant Dr. Morris Fishbein, editor of the Association's journal, as medicine's spokesman.

Another resolution, submitted by Dr. William R. Molony of Los Angeles, a California delegate, appeared aimed at the influx of foreign physicians into the United States, fleeing from autocratic persecution. The resolution called on state medical societies to require full citizenship—which involves a five-year wait for aliens—for certificates entitling the foreigners to practice medicine in the United States.

While the House of Delegates weighed matters of policy and Association government, the bulk of the 7,000 physicians, surgeons, and specialists in attendance at the convention, registered at the Civic Auditorium.

Scientific Session

A general scientific session at the Opera House in the afternoon brought them together to hear five technical papers read by medical leaders toiling on the outermost fringe of medical research.

Parallel with the Association convention, four medical societies preoccupied with highly specialized fields of medicine held conventions of their own. The Association for the Study of Internal Secretions considered advances of the past year in one of medicine's newest fields of study, glands and their effects on human health, at the Hotel St. Francis.

The American Radium Society, custodians of expert knowledge in the therapy with radium, met at the Hotel Mark Hopkins; the American Association of Medical Milk Commissions considered problems of diet and pure milk at the Clift Hotel, and the American Rheumatism Society held a one-day session on rheumatism and arthritis at the University of California Hospital.

Women's Society

The American Medical Women's Society, organization of women physicians, whose annual convention opened at the Fairmont Hotel Sunday, continued in session, while the Woman's Auxiliary to the American Medical Association, after two brief board sessions, spent the day sightseeing.

The huge scientific and technical exhibit on display at the Civic Auditorium, assembling all the latest techniques for the treatment of disease, as well as modern scientific apparatus, proved a magnet for thousands of the visiting medicos.

Visual demonstration of the ravages of disease, methods of treatment and equipment for treatment, was afforded in several hundred individual exhibits that occupied all three main floor halls of the Auditorium and the mezzanine floor as well. The exhibit is not open to the public.—San Francisco *Examiner,* June 14.

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United States Medical Pathfinders Throng San Francisco

Army of Mercy Men Gathering for American Medical Association Annual Convention

Men who measure their greatest achievements as the relief of human suffering assembled in San Francisco yesterday for the eighty-ninth annual convention of the American Medical Association, starting Monday.

They came bearing records of the advance made in medicine during the past year, to hold sessions for exchange of that knowledge so that all humanity will benefit from their work.

Medical Center

During the convention week, June 13 to 17, San Francisco becomes the medical center of the world.

Attention is centered on the sessions and the scientific exhibits which will overflow the Civic Auditorium, and on meetings of the Association's governing body, the House of Delegates, where medicine's advances will be reviewed. . . .

Preliminary Meetings

While last-minute plans were arranged for opening sessions of the convention, preliminary meetings of various branches of medicine were under way.

The American Society of Clinical Pathologists opened its first day of general session at the Palace Hotel with Dr. James B. McNaught of Stanford University as principal speaker.

The American Ophthalmological Society completed the second day of its convention at the Mark Hopkins Hotel. The American Psychiatric Association adjourned its meeting at the Fairmont Hotel.

Sessions of the House of Delegates of the American Medical Association will be held in the Sir Francis Drake Hotel Monday and Tuesday mornings and Thursday afternoon.

Scientific and technical exhibits will be housed in the Civic Auditorium, filling every available square foot of space in Polk Hall. The scientific meetings are to be held in adjacent buildings in the Civic Center.

The scientific exhibit consists of more than 150 displays prepared by leading investigators to demonstrate progress for the year.

The one general assembly of the convention will be in the Opera House on Tuesday evening.

Mayor Rossi, Dr. William Voorsanger, President of the San Francisco County Medical Society, and Dr. William W. Roblee of Riverside, President of the California Medical Association, will welcome the physicians to San Francisco. Doctor Abell will be inducted as president of the national association at the assembly.

The convention of the Woman's Auxiliary also will be held next week. Delegates and guests from all sections of the United States will attend sessions in the Fairmont Hotel. National President Mrs. Augustus S. Kech will preside.—San Francisco *Chronicle,* June 11.

ASSEMBLY OF LABORATORY DIRECTORS AND SEROLOGISTS

Hot Springs National Park, Arkansas October 21–22, 1938

The intensive campaign to stop the spread of syphilis now being waged throughout the country makes it imperative that only those serologic tests of proved efficiency be made available to private physicians and health officers. Diagnosis of syphilis must be prompt and accurate. The serologic blood test, becoming positive within two or three weeks after the onset of primary syphilis and remaining positive in the vast majority of untreated patients throughout the entire course of the disease, is the most important evidence of the existence of syphilis.

The American Society of Clinical Pathologists in coöperation with the United States Public Health Service realized the need for reliable serodiagnostic tests several years ago. The work of the Committee on Evaluation of Serodiagnostic Tests for Syphilis is sufficiently well known to require no comment. It is the opinion of this committee that its studies of the efficiency of the performance of serologic tests have progressed to a point where material gains would be made by a thorough discussion on common ground in which all those interested in the control of syphilis through laboratory methods may participate.

Plans are being developed for an assembly of laboratory workers from the entire country. All such workers, both from private, hospital and public health laboratories, as well as physicians and health officers interested in the control of syphilis, are invited to attend.

The proposed meeting, under the auspices of the Committee on Evaluation of Serodiagnostic Tests for Syphilis, with Surgeon-General Thomas Parran, Chairman, is scheduled for October 21 and 22, 1938, at Hot Springs National Park, Arkansas.

The aims and purposes of the assembly will be to consider means and methods to improve and to make more generally available the serologic tests, which are so important in syphilis control work. Tentative arrangements call for the presentation of the program in four sections.

The first section will consider the need for adherence to conventional technique in the routine performance of reliable serodiagnostic tests. This subject will be considered in papers by Drs. Harry Eagle, William A. Hinton, Reuben Kahn, Benjamin Kline, and John H. Kolmer, with special reference to the tests which each of these workers has described.

Need for training of laboratory personnel will be the subject of the second section. The qualifications and training for both laboratory directors and technicians will be presented in separate papers.

The third section will discuss the prosecution of the studies to evaluate the performance of serologic tests within the states. The efficiency of branch state laboratories and of municipal, hospital and private laboratories cannot be studied on a national basis. The subject is much too large. Should this be made a function of the state or large municipal department of health? Actual experience with such studies in the states of Maryland and New Jersey and in the city of Cleveland will be described.

The fourth section will consider the desirability of licensing or approving for the performance of serodiagnostic tests for syphilis, laboratories within the states by the respective state departments of health. This discussion will be conducted from the standpoint of the private laboratory director by Dr. Frederick H. Lamb of Davenport, Iowa. The health officer's side will be presented by Dr. A. Wadsworth, State Department of Health, Albany, New York.

A separate committee will draft recommendations for each of the four sections for presentation to the assembly. The respective chairmen of these four section meetings will be Drs. Walter M. Simpson, Dayton, Ohio; Arthur H. Sanford, Rochester, Minnesota; F. E. Senear, Chicago, Illinois; and H. H. Hazen, Washington, D. C. General discussion will follow the presentation of each set of recommendations.

An additional feature of the meeting will be an actual demonstration of the performance of the Eagle, Hinton, Kahn, Kline, and Kolmer tests by the originators of these procedures.

It is to be hoped that the attendance at this assembly will be large. Out of the meeting should come a crystallization of opinion with regard to the important problems which will be considered. Those interested in obtaining further information should write to the Surgeon-General, United States Public Health Service, Washington, D. C.

The Antiquity of Rabies.—The following is an excerpt from a book entitled "The Journey of the Flame," which is an account of one year in the life of Señor Don Juan Obrigon, known during past years in the three Californias as the Flame. Born at San Jose del Arroyo, Lower California, Mexico, in 1798, and, having seen three centuries change customs and manners, he died in 1902 at the Great Cardon, near Rosario, Mexico, with his face turned toward the South, written by Antonio de Fierro Blanco." This excerpt is published with the permission of the Houghton Mifflin Company, owners of the copyright.

"One day, having wandered with Inocente through the wild cactus-clothed hills west of La Paz, and killed such hares as we could carry, I sat in the shade of a bush to clean them; since in desert heat game must be quickly cleansed if one would preserve it.

"Being wary by training—for as a small boy at home older ones had often hunted me to my damage—I stood up often to look about me for enemies. It is a great help to be distrustful, for distrust is the parent of long life. As I thus looked about me, I noticed a pair of ears rise from the bushes a long way off, as if a dog jumped aloft the better to scent food.

"This did not please me, as when with Inocente I needed greater care, having two lives then to protect. Therefore, with caution, and standing in the center of a great bush to hide my red hair, I watched. It was a coyote which, following our tracks, jumped in air in order to locate us. Now, the coyote is an animal full of curiosity, and a camp-robber which follows tracks for what he may find, but does not hunt men. Therefore I settled down to my rabbit-skinning without anxiety.

"But in a moment it occurred to me that a coyote thus jumps only when he seeks hares, to locate them as they run and dodge about. When he follows a man's track, seeking camp refuse or leather to chew up, he slinks along, belly almost touching the ground, and taking advantage of every bush for shelter against sight. Therefore, I knew it must be a coyote rabiosa,[1] since being already too insane for thought, he followed only by habit what instinct taught him to destroy. Fearing man no more than he fears a rabbit, the hydrophobic coyote hunts both in the same way.

" 'Run straight ahead,' I ordered Inocente, 'and passing through that brush turn back abruptly on thy trail, and at the clump nearer to us jump as far toward it as you can, and there cower until this business is finished. Thus this coyote will pass you by.'

"But the boy refused, and when I pressed him only said: " 'My mother teaches me that no one of my race ever ran away or hid.'

"Seeing him set, and in not a bad road, I could only advise: 'Hold then thy daggers ready, fool. One in each hand, and guard well thy throat, for this is not child's play. Pray your very best to Saint Hubert, who protects against dog-bite, and who, if now awake, may help us with this mad coyote.'

"Then, watching for the mad beast as every few paces he leaped in air to locate us, I selected a bush ten yards away which he must pass. I planned, when I saw him there, to whistle, so that my first arrow might be aimed before his last quick rush at us came. A mad coyote which hunts men treats them as he does rabbits, at first moving slowly and tactfully so as not to excite his prey. Then, when within striking distance, he gives such a burst of speed as makes him seem like a streak of lightning which arrives at the horizon almost before it has left the zenith.

"Thus we waited, seeing a nose and a pair of ears appear at intervals above the bushes which hid the beast. Each time we saw the coyote's ears they were nearer to us. Inocente, at my elbow, did not once whimper; though I, under stress of my great fear of hydrophobia, kept my nerve only by saying aloud while the beast approached: 'Here comes Tomasa's Pedrillo,' that being the boy I most hated, and in years gone by the first victim of my bow.

"Soon we saw the great beast more plainly. Almost bare of hair he was, as the fires of madness had roasted his body; his eyes blurs of blood, while from his open mouth hung a dry and swollen tongue. When he had reached the bush I had chosen, I whistled sharply, throwing the sound a little to one side to puzzle him. For an instant he stopped; and shouting without knowing what I said, 'Go thou upon thy belly for a week!' I drove a war arrow into his left side, so that, as he bent his neck to bite off the arrow's shaft, his throat might be exposed. Swiftly I sent another arrow into his throat, and no longer filled with foolish fears, took my time in driving a third arrow lengthwise into his body.

"The strain being over, Inocente made me laugh more than I otherwise would have done by asking me: 'Why did you want the coyote to go upon his belly for a week?"

"Had I been alone, I would have gone to see the writhing body, but having the Sanhudo boy to care for, I made a long detour around the coyote and thus back to camp. There are certain animals impossible to kill, and which pretend only to decoy their hunter to destruction. Such a risk I could not take while Dona Ysabel's son was in my charge. Neither of us remembered, until next day, that all the hares I had killed for food were left behind to rot in the desert.

"That night, not being sleepy, I heard through their tent canvas—for as Inocente's guard I slept near by—Dona Ysabel whisper to him several times, as he woke with a start after dreaming of our maldito coyote.

"Doubtless also she put her hand upon his forehead to calm him. So my mother had often done to me when as a child, I slept beside her, and had been unduly excited by my day's sports. Now, nearing twelve, I had become too old for such care; and yet at times one regrets age and its loneliness.

"But I am not the kind which ever hid behind his mother's skirts, nor even before I could walk did I cry 'Mama! Mama!' when older boys beat me. This perhaps was only because of my red hair, which urged me to strike back when struck. Red hair does not carry its owner to Heaven, but as a help through life few things are better."

[1] Coyote rabiosa: coyote afflicted with rabies.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XI, No. 7, July, 1913

From Some Editorial Notes:

Lawyers and Doctors' Fees.— . . . We forget that it is not our moments of time that we are selling to our patients—or more often giving to them—it is our brains, our thought, our experience, the years of suffering we have felt—and seen—and which we have so heart-breakingly tried to prevent. Perchance it is just because we have suffered so much in ourselves and our patients, and feel first for the life of the patient, that it leaves us the poor fools that we are, unable to put a charge upon our advice that would in a measure pay us for the hours of work, anxiety and study that have made it possible to give that advice. Who can put a price on life; on health; on happiness? Least of all the man who is called upon to save and conserve these priceless things, life and health and happiness; for what is life worth without health—and can there be happiness without it? How often do we see the millionaire enjoying his money and his estate, and the physician who saved to him that life, struggling to pay a mortgage on his humble home. Let us, without becoming unduly commercial, try to learn to put a relative value upon everyday things.

From an Original Article on "Intratracheal Insufflation Anesthesia" by Saxton Temple Pope, M. D., San Francisco. Experimental physiology often paves the way for the advance of surgery. In the field of thoracic operations, it not only paved the way, it forced surgery to follow. Physiologists had demonstrated the possibility of maintaining artificial respiration and pulmonary ventilation many years ago. Vesalius, in the sixteenth century, first used the laryngeal tube to produce inflation of the lungs. In animal experimentation, Legallois, Monroe, Magendie, and Marcy, all resorted to an apparatus for artificial respiration, using a tracheal canula. . . .

From an Article on "The Nature of Disease" by W. T. Councilman, M. D., Professor of Pathology, Harvard Medical School, Boston, Mass.—There is difficulty in giving a clear idea of what is meant when we speak of disease, although every individual has a concept of the word when applied personally. In a way, the difficulty might be met by simply regarding disease as the negation or opposite of the normal, but the same difficulty applies to the definition of normal. The trouble is in giving a definition which will apply to the species when all our concepts of the conditions are formed from individual experience. . . .

From an Article on "The Medical Treatment of Gall-Bladder Disease" by Dudley Fulton, M. D., Los Angeles.— Diseases of the biliary tract are somewhat peculiar in that the same lesion in one individual may be latent and harmless, and in another intensely active and full. . . .

From an Article on "Medical Endowment for the University of California."—President Wheeler announced at Commencement Day, May 14, 1913, the George Williams Hooper Medical endowment for Medical Research. The gift is from Mrs. George Williams Hooper in memory of her husband. It consists of a foundation for medical research in connection with the University of California, and under the charge and ownership of the regents of the University. The gift is in the form of property worth considerably more than $1,000,000, and will yield an income of

(Continued in Front Advertising Section, Page 16)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

"Four staff members of a chiropractic college at 1145 Polk Street stood indicted by the grand jury today on conspiracy charges in what jurors declared was the 'most flagrant' asserted violation of the state professional code in years. The indictments, to be returned before Presiding Judge Louis H. Ward tomorrow morning, were voted against Mortimer E. Timm, director of the college; E. P. Fewer and Dan C. Lindsey, chiropractors, and Densmore Henschell, instructor. The quartet was accused of performing tonsillectomies and plastic surgery—reshaping noses—and of treating social diseases as well as operating a clinic without a license. Ten witnesses, all former patients except one, who said he was a student and assertedly was allowed to practice medicine after only a week's study, testified before the jury, Assistant District Attorney Harry J. Neubarth revealed. The grand jury action climaxed months of investigation by Special Agent Joseph W. Williams of the State Board of Medical Examiners, who posed as a prospective student and observed, he said, a surgical operation." (San Francisco *Call-Bulletin,* May 19, 1938.)

"Extradition of E. P. Fewer, dean of a San Francisco chiropractic college, was asked today by Governor Merriam. The man is held in Houston, Texas, on a San Francisco warrant charging seven counts of conspiracy to violate the Business and Professional Code. He and three others were indicted by the San Francisco Grand Jury on May 20 after testimony that they practiced and taught surgery in the Standard Chiropractic College and Clinic at 1143 Polk Street." (San Francisco *News,* June 6, 1938.)

"As an aftermath of Grand Jury indictments of four men allegedly practicing medicine without a license at a Polk Street chiropractic college, police yesterday prepared to serve a warrant charging M. James McGranaghan, chiropractor-attorney, with delaying and obstructing an officer. McGranaghan, former candidate for Supervisor and for City Treasurer, allegedly struck Joseph Williams, Special Agent for the State Board of Medical Examiners, last Tuesday as he and Agent Thomas Hunter visited the college at 1145 Polk Street in search of evidence. The attorney said he represented three of the accused men. According to Assistant District Attorney Harry J. Neubarth, two, Mortimer E. Timm and Densmore Henschell, have no license of any kind, while the others, E. P. Fewer and Dan C. Lindsey, have only chiropractor licenses. Neubarth said that, in addition to striking Williams, McGranaghan had the officer arrested. . . ." (San Francisco *Chronicle,* May 21, 1938.)

"Charged with delaying and obstructing an officer, M. James McGranaghan, chiropractor-attorney, yesterday was arrested and booked at the city prison. The attorney, a familiar figure in San Francisco's political life, was released on his own recognizance and will appear in Municipal Court today. McGranaghan's arrest was an outgrowth of the Grand Jury indictments of four men allegedly practicing medicine without a license at a Polk Street chiropractic college. The attorney is charged with striking Joseph Williams, Special Agent for the State Board of Medical Examiners, who swore to a warrant for McGranaghan's arrest. Williams said he was struck when he and Agent Thomas Hunter visited the college at 1145 Polk Street." (San Francisco *Chronicle,* May 24, 1938.) (Previous entries October and December, 1927; November, 1934; March and July, 1935; December, 1927; March, 1938.)

(Continued in Front Advertising Section, Page 18)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

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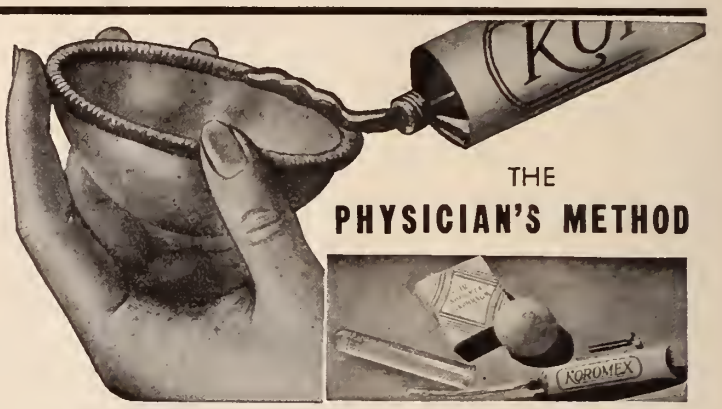
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Climate and Tuberculosis.—There was a time when consumptives were housed in warm, unventilated rooms, because doctors confused tuberculosis with a "cold." The mystery of malarial transmission caused night air to be feared. Many members of a tuberculous family died in a polluted house, hence the disease was believed to be hereditary and it was considered hopeless; the disagreeable subject became taboo and very little was said or done about it. But about fifty years ago we learned that fresh air is good for tuberculosis and that the disease is curable. At first, certain kinds of air were considered necessary and a belief in special climates arose, particularly those of high altitudes. The salts of sea air and the ozone of pine forests were also highly regarded. About that time the fear of infection became widespread and sanatoria were built, but not fast enough or large enough, and so it was hard for a consumptive to find a place to go. He was shunned at home, but welcomed in desert and mountain. His future was dark where institutions were as yet unbuilt and home treatment was little understood, but the new health resorts advertised a welcome and promised much. If his disease was in the early stage the patient would go West and rough it. If his case seemed hopeless, nevertheless, he must have "his chance." The family doctor, importuned by the patient and harassed by a distracted family, did what was expected of him—advised a "change of climate." In a spirit of high adventure, our youth lent themselves gladly to the movement. It suited them perfectly. Who would remain to bathe seven days a week in familiar air when he might do some great thing and perhaps achieve a speedy cure! So they went forth, some with early, but more with far-advanced, disease, all untrained, ignorant, but hopeful. Those who recovered returned and made the fact known. Those who failed died silently in far places, drifting sands covered their graves, and the facts were not widely advertised. Thus the importance of climate was for a time exalted over the less glamorous elements of treatment.

Patients with better leadership or example, such as Trudeau's, applied themselves diligently to treatment and many recovered. A few courageous physicians began to publish cures in Philadelphia, New York, and Boston; and as the basic principles of treatment became known and treatment facilities increased, hysteria ceased. At the same time we were brought to a sober realization of the magnitude of our tuberculosis problem. Case finding, early diagnosis, and skillful treatment took first place. Recovered patients walked forth upon every street. Local sanatorium graduates held alumni meetings; their slogan was, "Better a good doctor and comforts in the worst climate than a poor doctor or privations in the best." There is evidently some danger of discounting the real value of climate. Good doctors and creature comforts are no longer lacking in our best climates.

In 1899 the United States Public Health Service established a marine hospital at Fort Stanton, New Mexico, for its tuberculous beneficiaries, in harmony with then prevailing ideas. For years there was a waiting list, so great was the demand for transfer from the coastal marine hospitals to this ideal climate 6,200 feet above sea level. But of the first 2,588 patients admitted, 861 died, 130 within one month and 308 others within six months after arrival. It was found necessary to refuse transfers to certain classes of patients, and the Public Health Service now transfers to its New Mexico sanatorium only patients whose temperature and pulse can be brought to normal by rest in bed, believing that climate is not of first importance in the acutely progressing disease. A death seldom occurs there now among the carefully selected patients. They are encouraged to remain a long time to insure a cure, the treatment is superior, and facilities are ample; but merchant seamen, having learned that climate is not all important, are now inclined to belittle its influence and many choose to remain in the general marine hospitals and refuse transfer to the New Mexico sanatorium when selected for it. Many of the best sanatoria in the Southwest have actually been closed for lack of patients. The real value of climate is now often underrated; the pendulum always swings too far.

The Relative Value of Climate.—The most important therapeutic measures in pulmonary tuberculosis are:



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Comparatively few patients can realize ideal conditions for recovery. A limited purse procures rest for a limited time, or in inadequate degree, and fresh air is often expensive, like choice food. Fresh air is costly in the city, because it means proper housing in a good location. How much that means in a city like New York, for instance, is readily understood. Removal from the city entails expense and other sacrifices. There are differences in climates—certainly some climates are better than others; but excellence of climate is no more essential to a cure than excellence of some other things, and there is no climate so good that it will always make up for increased work, or poorer housing, or scantier fare. Just as a patient may not be able to secure the best house, the best food, or the best doctor, so he may not be able to afford the best fresh air, *i. e.,* the best climate. Each case must be decided on its own merits. For a patient with fever, sweats, and rapid wasting, absolute rest in bed with good ventilation and good nursing outweighs all other considerations. On the other hand, unfavorable climatic conditions, such as oppressive heat, irritating dust, smoke, or fog, may have such a bad effect that change of climate becomes of prime importance.

Preliminary Observation Before Advising Change of Climate.—To advise a change of climate for all patients is unwarranted. Changes are desirable in certain cases, but precipitate haste in sending a patient away is a mistake. The old adage, "Consumption, therefore creosote or Colorado" is equally expressive of therapeutic and climatic ignorance. The patient who should be sent to a distant climate immediately upon diagnosis is exceptional. At the Marine Hospital Sanatorium at Fort Stanton, New Mexico, the results have been nearly three times as good in patients who left the home stations without fever as in those who had a temperature of 38 degrees centigrade or more within two weeks of departure. The number of deaths in those leaving afebrile is to the number in those with fever as 22 to 59, the arrests as 19 to 7½, the apparent cures as 10 to 3. A period of observation is desirable to exclude hopeless cases and permit an intelligent selection of climate if a change is needed.

Hopeless Cases Not to Be Sent to a Distance.—It is not always easy to determine when a case of pulmonary tuberculosis is hopeless, but in general the patient with advanced disease who does not offer some hope of temporary arrest in the home climate, when treated in a local sanatorium, or under other favorable conditions, cannot be expected to improve after a long journey, no matter what the difference in climate. A progressing case of long standing, with abdominal organs already damaged by terminal changes of the disease, will not be greatly benefited by change of climate. Occasionally a critical case recovers or life is prolonged beyond all expectation in a health resort, but the same thing occurs in home climates. It makes little difference to a dying man what the climatic conditions are

(Continued on Next Page)

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(Continued from Preceding Page)

so long as he has proper care; and there is no picture more miserable than the boarding-house life of a consumptive, hopelessly ill among strangers.

The Psychological Moment for Change.—Almost any tuberculous patient who may be expected to recover, as well as many hopeless cases, will, when kept in bed in freely flowing air anywhere, improve for a time and up to a certain point. "After comparative quiescence of the lung process has been reached under treatment at home, and the nutrition is much improved, there comes a stage where further improvement is slow. This is the psychological moment for a change. In speaking of change, I mean a complete change to health resorts in the Far West; or those in the East at considerable distance from the patient's home." (Francine.)

Special Climates.—The selection of patients for high altitudes requires careful study. Such places in the United States are dry, cool, and stimulating, with a large number of clear days and a maximum of sunshine. Concerning the therapeutic effects of diminished air pressure itself authorities differ, some holding it to be indifferent, others assigning it a positive value in dilating the air vesicles and increasing pulmonary circulation. Still others, while granting that many patients are benefited by such climates, believe that a rarefied atmosphere may be harmful because the deeper breating required is opposed to pulmonary rest. All agree upon a large number of contra-indications to high altitudes, such as low vitality and poor circulation, declining powers of heat production, neurasthenia, irritable temperament, acutely progressing disease, dyspnea, nephritis, emphysema, excessive bronchial irritability, dilatation, decompensation or nervous derangement of the heart, and far-advanced disease with much destruction of lung tissue. For young adults without any of the foregoing complications who can and will secure proper medical attendance and submit to the same regimen that is necessary to effect a cure anywhere, the high, dry climate is the best. It has its dangers, one of which is the sense of well-being which may betray one into harmful exercises. It will frequently revive a jaded appetite or mitigate a troublesome moist catarrh at once, and it will add zest to life, but it is not a short cut to health.

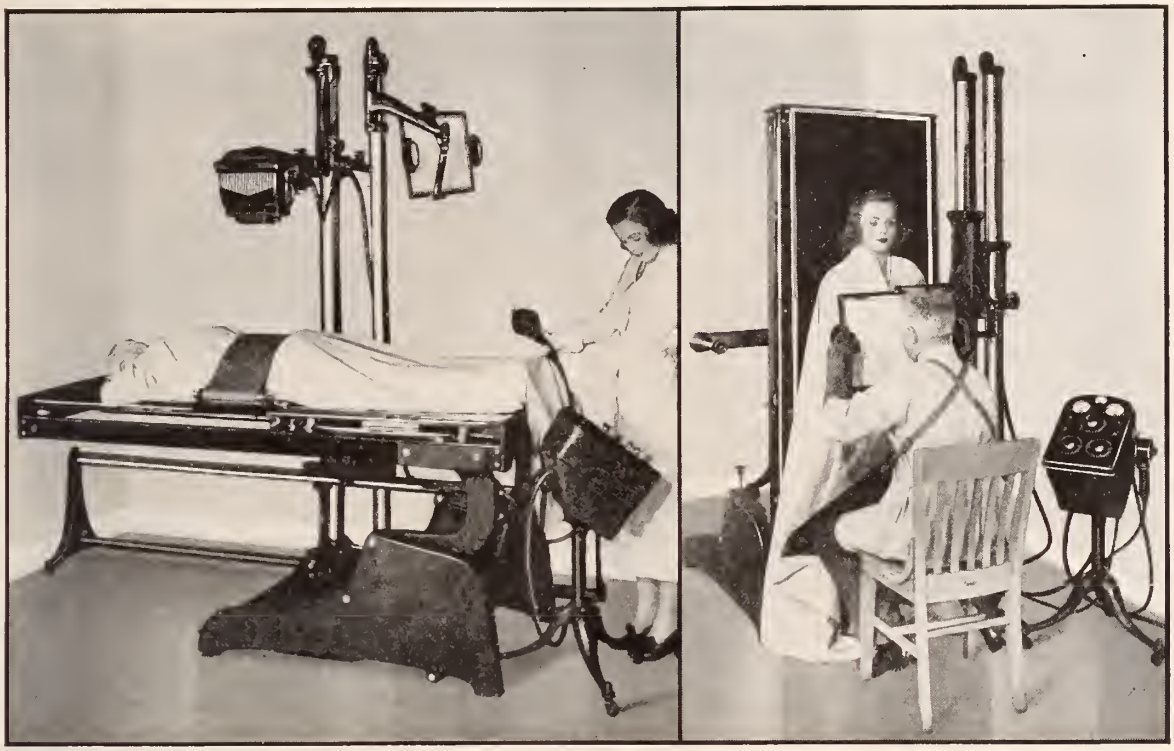
Local weather conditions at certain seasons may demand a temporary removal. When crowds of well people press out of a hot city to the nearest cool resorts the doctor may well consider similar relief for his tuberculous patients. The tonic effects of cool air with increased appetite and power of assimilation account for much of the good results from dryness and elevation.

There are certain advantages in undertaking the cure in one's own home climate, and by this term is usually meant places not more distant, for instance, than the confines of the home State. The limitations of a familiar climate are known and will not be presumed upon, whereas the faith inspired by a removal to some especially selected climate often weakens the regimen which is necessary anywhere. Moreover, a return to home climatic conditions is more likely to show a lapse from the careful hygiene which was followed with comfort in a favorable spot, but seems a hardship in more rigorous climes.

The Local Sanatorium.—Preliminary treatment for a few months in a local sanatorium is most valuable in recently diagnosed tuberculosis, whether the patient is later to be treated at home or sent away. The number of these institutions is increasing, and within a few miles of any large city will be found charitable, semicharitable, and private sanatoria for any class of case. The habits of life which the patient must observe to live with or cure his disease in any climate are best learned in an institution where the inmates are devoted solely to the business of getting well. There is, in a well-ordered sanatorium, an esprit de corps among the patients themselves, and intelligent, buoyant, helpful coöperation not altogether unlike college spirit, and the special training afforded likens the sanatorium to a school, as, indeed, it is.

The General Practitioner's Point of View.—The family doctor, having made a diagnosis, absolute or provisional, is immediately confronted with the question, "What are the

(Continued on Page 38)



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(Continued from Page 36)

best opportunities for recovery within this patient's means?" for, as Edson says, "the best he can get is what we must order, both as regards food, bedroom, and quality of air." If the case is in a family of wealth, he has merely to decide whether a change of climate is desirable and the nature of the change indicated, and advises accordingly. In the vast majority of cases, however, he must weigh the benefits of a change against certain sacrifices usually necessary to effect it, and here must be considered a multitude of details, some of which the family doctor is in a position to decide better than anyone else and for some of which he may need consultation.

If the case has a favorable outlook and a good chance to recover in the home climate, the fact often remains that there would be a still better chance in some other climates. The family doctor desires to prescribe nothing short of the very best conditions. He recalls, too, that a "change of climate" is time-honored advice, the patient expects it perhaps, and there will be less responsibility for an unfavorable outcome if he gives it. He knows the vexations of home treatment and remembers that he has even been accused of mercenary motives in holding certain favorable cases for home treatment. It requires considerable courage to recommend "no change," and the family doctor who undertakes to treat a case of pulmonary tuberculosis in the home is not influenced by financial rewards. Indications for or against removal are found in the home itself. A nervous man or woman may need to be taken from a turbulent household of lusty children, while for a differently constituted patient congenial relatives are indispensable for content. Extreme measures are sometimes necessary to get a careless patient away from helpless associates, or, on the other hand, to save an invalid from false ideas of treatment at the hands of ignorant relatives.

A multitude of counsel confuses the busy practitioner. The merits of various regions are urged. Relatives may insist that the patient be sent away without delay and perhaps raise a question at the same time against the propriety of an ultimate return to home climatic conditions. The doctor knows that good medical attendance is as indispensable in the new climate as the old, and that a sanatorium is as necessary in a distant health resort as in the home city. He recalls sad experiences of early days when his patients thought that they could loiter in smoky lobbies and effect a cure simply because they were breathing the pure air, or the rarefied air, or the dry air of some widely advertised climate.

But it is often easier to persuade a patient to enter a sanatorium at a distant resort than one near home, and sometimes a person can be persuaded to abandon his business pursuits, or a mother to be separated from young children, only by radical removal. The hope afforded by a complete change may be needed when a patient has met repeated reverses or has seen unfavorable outcomes in friends or relatives. The family doctor must study the tastes and habits of his patient. The indications for change are different for a home-loving, carefully nurtured girl than for her bachelor brother. Young adults often welcome a change, whereas, one past middle life, with strong attachment for home scenes, may consider it a hardship. For the very young or the very old a removal simply for change of scene would almost never be indicated. Temperament and previous climatic environment are important. One would not, for instance, send a Norwegian youth to the Azores nor a Creole demoiselle to winter in the Adirondacks. A thin, irritable person, who shrinks at sudden drops in temperature, would not be advised to go to Colorado, nor would a full-blooded, lusty individual ordinarily be directed to a warm beach resort.

In deciding whether a case of pulmonary tuberculosis should have a change of climate, temporary or permanent, remote or near, the doctor must not be bound by any rule, but should be guided in each case by all the attendant circumstances—by the patient's age, sex, social conditions, wealth, temperament, and desires, by the state and activity of the disease and its complications. He will be influenced

(Continued on Page 40)



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in Magnolia Gardens
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(Continued from Page 38)

by the home climate and the season of the year, but it is safe to say that no place is so unfavorably situated that a change is always necessary and none so fortunate in its location as to preclude the possible advisability of a removal.— F. C. Smith, Medical Director, United States Public Health Service.

What Are the Measuring Sticks by Which All Health Commissioners May Make a Comparative Appraisal of Their Activities?—Health departments and practice have been surveyed, studied, analyzed, compared, inventoried, scrutinized, and demonstrated. These have resulted in an array of conflicting advice, opinions, proposals, and recommendations about which little is done. These experiences have demonstrated, first, the limitations of a survey, and, second, have provided a clearer conception of its probable values, which are worthy of mention.

First: It should not be considered that an appraisal is a scientific evaluation study. Appraisal means "an estimate of worth or value" and the findings should be interpreted merely as an estimate or guide in relation to standard performance.

Second: The more specific the problem or question to be answered, the more valuable the appraisal. Preferably it should be restricted to an individual service rather than an entire program on a total rating basis.

Third: The analysis of mass data, whether they refer to health department records, service reports, morbidity or mortality rates, is not adequate for scientific research, which should be conducted as a special study.

The definition of our problem here calls for an appraisal by the health commissioner, first, of his own program, and, second, for comparison of this program with that of other counties. There are measuring sticks by which his own program can be analyzed, but the comparison with other counties is not a simple one. The implication is that the health problems in all communities are of like degree, and that health department practice can be or should be standardized. Neither of these assumptions is true. The health problems of two communities are not alike, nor is it advisable to standardize health service. Briefly one cannot gauge health department service for purposes of accurate comparison on a total rating mathematical basis.

We know only that the health service requirements of a rural area are not essentially different from a city area, and that the farmer needs approximately the same amount of adequate service as his city cousin.

There are other factors which cannot be measured. One cannot measure enthusiasm, devotion, tact and intelligence of personnel. One cannot gauge administrative ability, scientific accuracy, and higher quality of service by loyal members of a department. Finally, an appraisal is based on quantity rather than quality of service. Rather than the number of the nursing visits or physical examinations, one would wish to know the content of the visit and the thoroughness of the examination. Thus, if we add up items of service, the total is interesting but not informative. On these grounds, we must object to "survey contests." However, such total ratings are not without value in awakening the interest of the public in public health, and it is something the layman can understand.

We must have detailed analyses to be of significance. Low scores will tend to stimulate a health commissioner to improve his own program. Comparisons on specific services can be made with validity to other counties, if these comparisons are based on accepted criteria or accepted health practice.

There are three methods of appraisal with which a health commissioner should be familiar.

First: Reduction in mortality and morbidity.

Second: An assumed dollar equivalent value of the services rendered.

Third: The intensity and number of the services provided.

The first method, the measurement of mortality and morbidity would be the method of choice if the reductions in deaths and illness actually due to the health program could be measured. Sheer chance may cause marked fluctuation of rates in small population units, and reductions may occur from many forces or combinations of forces other than those of the health program. It is not necessarily true that areas with the more adequate health service have the lower trends in rates. In most states the converse is more often true, that community populations with the higher morbidity and mortality rates have the more poorly developed or least adequate health service.

By the second method of appraisal, the total value of the services provided is calculated in dollars by applying specified values to each item of service. A fee schedule is available for distribution by the United States Public Health Service. By this method, according to a list of values, such as $1 for each vaccination, $1 for each nursing visit, $2 for each Wassermann, etc., and applying these assumed values to the statistical report, a total estimate in its monetary equivalent is obtained of the value of the service to the community. However, the method is not a real study of accomplishment as a statistical procedure, but is sometimes useful in obtaining appropriations.

The third method, the use of the appraisal form published by the American Public Health Association, insures very definite results. It constitutes a working manual of accepted public health practice, which every health commissioner should find invaluable to appraise his program every several years. It furnishes the administrator with an activity schedule which brings to light distressingly unbalanced and deficient programs. It may be used for all local work; that performed by official agencies, state and local agencies, and by unofficial voluntary agencies and by private physicians. It is published in two forms, one for city and one for rural work.

The appraisal form is divided into three parts. The first part comprises a list of selected health indices under which may be entered salient points of information of the community population, for comparative reference to similar characteristics of the state, counties, and, if desired, the registration area. It allows for the tabulation of information on population, age distribution, wealth, social and economic status, housing, sanitation, vitality and health, personnel and medical facilities and health practices. (The

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third part or section is a summary of these characteristics on a percentage or index basis.)

The main body of the form, Part II, deals with administrative practice and provides measurement of achievement. It contains criteria by which each item of service can be compared with accepted standards. Each health procedure has an assigned value, partial credit in points being received for reasonably adequate service. The various divisions of health practice are assigned relative and weighted values; a perfect score in all divisions totals 1,000 points.

Many health commissioners find the survey schedule more valuable as a reference handbook of health procedure than for actual conduct of the tedious performance of scoring. For example, under the first subject of "Vital Statistics, Birth Registration," the following questions occur:

(*a*) Are certificates of births checked locally for completeness and reconciled before being accepted for filing?

(*b*) Is it routine practice to check deaths under one year against certificates of birth?

(*c*) Is there a continuous check of birth reporting or has a periodic check been made within two years?

(*d*) Are birth certificates indexed alphabetically by name?

(*e*) Are supplementary reports of names regularly received and recorded on birth certificates?

Again, for rapid reference, criteria are listed under each item of service by which performance may be checked against accepted standards. For example, if consideration is given to the subject of reporting and registration of tuberculosis cases, the standards require that two new cases and five known living cases be registered per average annual death. From these standards, the health commissioner can calculate rapidly how many active and known living cases of tuberculosis he might expect to have registered for supervision. This procedure may be extended to every item of service, to estimate potential needs, probable case loads, and to measure performance. When tabulated, comparisons valuable for guidance in administration of specific programs may be made with programs of other health districts.

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Adequate Medical Care. — All diseases have certain social implications and social aspects which must be recognized. The specialist in epidemiology is interested almost wholly in the host-side of the disease process, and it would be difficult to draw a line between epidemiology and medical sociology. In any event, physicians are now compelled to give as much study to the host and his environment as to the disease organism and its environment.

The problem of adequate medical care is of deep interest to every group in our social structure, and the alert physician, above all others, recognizes that the practice of medicine touches every human relationship. The prevention of sickness so far as possible by the extension of all health services is the logical first step in any plan and that there must be a more complete coördination between the efforts of those engaged in curative and those engaged in preventive medicine. The doctrine that curative medicine is wholly an individual affair and that preventive medicine is the function of the state is no longer tenable, for one cannot make a hard and fast distinction between the two.

Whatever changes are brought about we must protect, on the one hand, the high quality of medical service and, on the other, promote the public health in every way possible. These two objectives are not incompatible; indeed, they are identical!

Science now knows that each individual is born with a very rich but a fairly well-mixed heritage. What has been learned about heredity and genetics makes it reasonably sure that we are nearly all potential geniuses or criminals. It is the kind of world or place in which we are born and reared that determines in a large measure what we become. I do not say that environment is more important than heredity. The one cannot exist without the other. Both are equally important. What I do say is that these two factors, race and place, heredity and environment—control the form, the structure, and the behavior of every living thing. There is no third influence.—Dr. R. R. Spencer, United States Public Health Service Senior Surgeon.



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Dangerous Tick Bites Avoidable by a Few Simple Precautions.—Fear of the tick that carries Rocky Mountain spotted fever in the East need not keep people indoors this summer. The tick's principal danger lies in its bite. Bites can be avoided by a few simple precautions, according to Dr. F. C. Bishop of the Bureau of Entomology and Plant Quarantine, United States Department of Agriculture. At the same time, Doctor Bishopp emphasizes, failure to take these precautions may have serious consequences. The East has an unusually large number of common dog, or wood, ticks this year—some being reported for the first time from vacant city lots. Even though only one in several hundred of these ticks may carry the fever virus, that one tick, which cannot be distinguished from the rest, is an agent of death. No cure for Rocky Mountain spotted fever is known. Its mortality rate is one out of every five persons infected.

After passing the first part of its life as a small parasite on field mice, the tick now waits in tall grass and underbrush for larger host animals. Cutting all grass and underbrush around houses and pathways, therefore, is one way to protect dogs and people from tick bites.

Keeping ticks from gorging themselves on the blood of dogs is another protective measure. A pair of forceps is all that is needed in removing ticks from dogs to which only a few have attached themselves. Dusting every five days with derris powder is necessary for dogs supporting a large number of ticks. Ticks should be handled with great care, Doctor Bishop points out. Infection can be contracted by crushing a tick full of blood from an animal that has had the fever.

Boots laced up over trouser legs protect men walking through tick-infested areas. Ticks are usually picked up from grass or weeds close to the ground.

Ticks always work their way upward before attaching themselves to their human host. The back of the neck and head are their favorite feeding places. Careful examination of heads, especially children's, at least twice a day, will reveal the presence of a tick in time to prevent a fatal bite. Examination of the whole body is necessary after exposure to ticks. An effective way to detick clothes is to place them in a vessel that can be tightly covered, and set on top of them a pan containing half a teacupful of carbon tetrachlorid or carbon disulphid. A few hours of such fumigation kills the ticks.

"Don't wait for the doctor to remove a tick," Doctor Bishop warns. The important thing is to get the tick off as soon as possible. Anyone can disinfect the bite and the surrounding tissues by inserting into the exact spot where the tick was attached a round toothpick that has been dipped in iodin and drilling it in slightly.

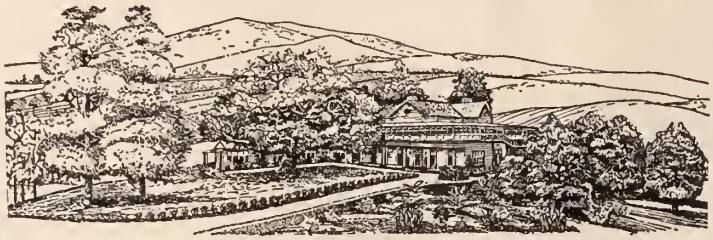
The American dog tick is widely distributed throughout the United States east of the Rocky Mountains, as well as in western and northern California and in parts of Oregon. It is most numerous along the eastern coast from Massachusetts to Florida, especially within a few miles of the shore. Both Texas and Florida have a great many ticks—also some inland areas, such as southern Iowa and parts of Wisconsin and Minnesota. Islands off the coast of Massachusetts and of South Carolina are heavily infested with ticks, especially Martha's Vineyard, Nantucket, and Naushon. Tick numbers fall off along the sea coast from Marion, Massachusetts, westward. The Narragansett Bay islands are rather heavily infested. A few ticks have been reported on the west side of that bay and as far west as Stonington, Connecticut. There are large numbers of ticks on Long Island, especially the eastern half, and along Chesapeake Bay in Maryland. It is rarely seen west of the Blue Ridge.

Health is the wealth of youth. To achieve health, success, and happiness, work when it is working time and play when at leisure. Build a sound body and develop an alert mind by following the rules for health.—From *Everyday Problems in Health.*

To study the phenomena of disease without books is to sail an uncharted sea, while to study books without patients is not to go to sea at all.—*Osler.*

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Making Headlines.—Early this month Chicago newspapers got together with medicine, though apparently not at the invitation of medicine in general, with the probable result that whatever progress may have been made toward more satisfactory coöperation between the medical profession and the popular press has suffered and will suffer a set-back.

The case was that of a five weeks' old baby "doomed to death, or a life of blindness," as the newspapers put it, suffering from glioma. Spectacularly dramatized was the need for a decision by the child's parents between letting nature take its course toward inevitable death and an operation removing sight forever.

Without question, there were aspects of the saddest possible nature involved—aspects on which newspaper sob-sisters could work their readers into a frenzy of agony. Screaming headlines, pictures of the principals, interviews with butchers, lawyers, and society women on what they would do if it were their baby.

If it was not a good story in its own right, the newspapers made it one, but in general did not create an entirely favorable impression of the medical profession, nor an entirely fair one. Glioma may not be commonplace, but probably there were many other cases confronting Chicago doctors at the time that were at least as serious, if not as dramatic. Daily medical routine in any large city is crowded with cases which would make front-page copy if the sob-sisters could learn about them. And with all the alleged conferences and arguments among members of the profession publicized, it is just possible that the public might have been as thoroughly impressed with what seemed to be the uncertainty of the medical profession as with its dramatic fight to preserve life.

All in all, the case seemed to be one of those which makes most doctors wary of the popular press, and consequently retards the development of a kind coöperation and mutual understanding which would provide the public with information of a more desirable type.—*Victor News.*

Cancer.—The sharp increase in the rate of death from cancer may well be more statistical than real, according to authorities. They point out that two factors contribute largely to it:

1. The upward trend in age levels of our population. As more people live longer, reaching the so-called cancer belt—over forty—there are, naturally, more deaths from this malignant disease. Improved techniques for dealing with tuberculosis, malaria, scarlet fever, etc., leave more people for the degenerative diseases of old age, among them cancer.

2. Improved diagnostic techniques: when a person dies of cancer now it is recognized as such. Lack of skill in diagnosis usually explains the legends that certain primitive peoples, among them the American Indians, never had cancer.

Cancer of the breast in its early stages is one of the most curable of serious diseases. If taken when still local, it may be cured in 75 per cent of the cases, according to the American Society for the Control of Cancer.

What causes cancer—sudden, wild growth of certain cells along one of the milk ducts—is not entirely understood. It is probably due to chronic irritation of some sort and to hereditary susceptibility.

Good rules for guarding against cancer of the breast:

1. Go to a physician as soon as one notices a lump in the breast. Only 10 or 15 per cent of these will be cancer, but they should be promptly investigated. It is dangerous "to wait to see what will happen" to such a lump. If because of delay cancer cells have metastasized or spread to other parts of the body, the odds are five to one against a patient instead of, as in early cancer, three to one in her favor.

2. Be sure to have a complete physical examination once a year by a competent physician.

Despite the widespread popular belief, a blow on the breast will not cause cancer, declare the experts associated with the American Society for the Control of Cancer.

Men used to say society could not exist without the support of a leisure class. Nowadays we look upon leisure, not as the privilege of one class, but the birthright of every man and woman. Moreover, an automatic effect of our machine age has been to increase leisure. Happiness comes, not from work and rest, but from a proper balance of work, leisure, and rest; rightly understood, therefore, leisure is the time, not for rest but recreation, not for indolence but for free beneficial activity. It helps to keep the door of hope open, enabling us to take advantage of passing opportunity, to grow, and to progress. Character, if we may believe biographers, is formed to a considerable extent in a man's hours of leisure. Whatever his daily job may be, rules and routine make him act in a certain approved way. What is demanded of him is teamwork. It is only after man punches "out" on the time-clock that he is free. Note what he does when he has nothing to do and you can tell what kind of a man he is.

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Summer Health Hazards.—This is the season of the year when it becomes customary for public health officers to issue vacation "do's and "dont's." There is, seemingly, no end to the admonitions along health lines that may be given to individuals who are going into the country for their vacations. The list of hazards is long, and many of the more spectacular type occur so rarely that they may be classed as uncommon. Nevertheless, all vacationists may become informed, easily, upon methods by which such hazards may be avoided. Among them are the following: Snake bite; poison oak; mussel poisoning; heat stroke; sunburn; polluted drinking water; contaminated milk; infected "cream-filled" bakery products; mosquito bites; flies and gnats; black widow spiders; food poisoning in general; overexertion; automobile accidents; swimming hazardously; firearms; fireworks; rabid animals; infected rodents (squirrels, rabbits, chipmunks); ticks; fleas; "athlete's foot" and many others.

Local health officers may well be prepared to issue instructions in the prevention of such hazards. The California State Department of Public Health will be glad to provide health officers with all specific information upon these subjects that may be available. It is possible to spoil, unnecessarily, the vacation of an individual who may have a phobia on summer health hazards and it may also be possible to prevent suffering and possible death through the dissemination of timely information to a receptive vacationist.

More Drugs for Insured Germans.—Purchases by the krankenkassen are said to account for 80 per cent of Germany's domestic business in medicinal and pharmaceutical products, according to a report from the American Consulate General, Frankfort-on-Main. Such purchases amounted to 143,600,000 marks in 1937, which compares with 137,716,000 marks in 1936 and 151,584,000 during the preceding year.

The krankenkassen had an average membership of 20,200,000 persons, not including family dependents of members who were also covered, during the first three quarters of 1937, against 19,400,000 in the corresponding months of the preceding year. That the increase in medicinal purchases recorded by this agency did not result solely from larger membership is indicated by the fact that the average expenditure per person increased from 5.08 marks in the 1936 period to 5.19 in 1937, the report points out.

If you are really psychologically grown up you must realize that no child belongs to his parents. The parents have the duty of providing the child with the training necessary to enable him to emancipate himself from the family, and, with maturity, to carry on his own life independently of his parents. No child owes his family a debt of gratitude or obedience or filial duty. No normal parent can or will demand these things. Most of the family conflicts that occur arise from ignorance of this simple biological, sociological, and psychological law.—W. Beran Wolfe, M.D., in *A Woman's Best Years.*



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Rabies Control Aided by Coöperation of Dog Owners. Hundreds of requests for information on rabies come every year to the United States Department of Agriculture. Dr. H. W. Schoening of the Bureau of Animal Industry of the United States Department of Agriculture makes these timely observations:

Rabies is one of the great menaces to dogs. Dog owners and others can help to control this disease by familiarizing themselves with precautions. During the summer months, when many tourists take dogs with them in automobiles, opportunities for spread of the disease increase. Doctor Schoening cites a recent case in which a tourist brought a dog from a distant state into a large eastern city. A short time later the dog developed rabies. Doctor Schoening emphasizes the importance of obtaining veterinary counsel whenever a dog, especially a strange dog, shows symptoms of rabies.

Common Symptoms

The symptoms of rabies are quite characteristic and may be divided into two types—the furious or irritable, and the dumb or paralytic.

In the furious form of rabies there is a marked change in the disposition of the animal which should arouse suspicion. An affectionate dog may become morose and depressed, whereas a snapping animal may become cowardly or affectionate. This stage is followed in a few days by an irresistible tendency to roam. The dog fights or bites at anything that interferes with its freedom. On returning home after its wandering, the dog frequently seeks a secluded place. Although the secretion of saliva may become excessive through inability of the dog to swallow, foaming at the mouth is not a common symptom, as sometimes believed.

The dumb or paralytic form of rabies is less common than the furious type. The affected dog is depressed from the beginning and hides. The first symptom commonly noted by the owner is paralysis of the lower jaw, as a result of which the animal may be suspected of having a bone in its throat. The paralysis progresses until the animal dies.

Some countries, notably England and the Territory of Hawaii, are entirely free of rabies. They have prevented the introduction of the disease by a quarantine on dogs offered for import, combined with other precautions rigidly enforced. In countries where the disease is already present, the most dependable measures are licensing, impounding destruction of stray dogs, and quarantine measures. A further aid is preventive vaccination.

Preventive Vaccine

Experiments conducted by the Bureau of Animal Industry indicate that resistance to rabies can be increased in many dogs not already exposed by a single injection of rabies vaccine. This resistance is only relative, however. It may be strong in some animals, but weak or lacking in others. Thus some animals can withstand actual exposure to the disease, whereas others may not. Hence, vaccination is only an aid to the standard control methods already mentioned. Prophylactic rabies vaccine is an entirely safe product as now manufactured under federal supervision. It contains no living virus and thus cannot cause or spread the disease. This point is emphasized by Bureau officials despite contrary statements by persons opposed to preventive vaccination.

The variable results obtained from vaccination have caused differences of opinion concerning its value. These differences, Doctor Schoening urges, should not interfere with full coöperation and support by dog owners and veterinarians of other standard measures for controlling the disease.

Sewer gas has been credited with being responsible for a host of evil effects upon health and the influence of this line of thought still persists in plumbing codes. The great majority of the lay public still hold to the belief that bad odors are injurious to health and become quite outraged when a health authority fails to get excited about foul smells which may not have any health significance whatever.—The Health Officer.

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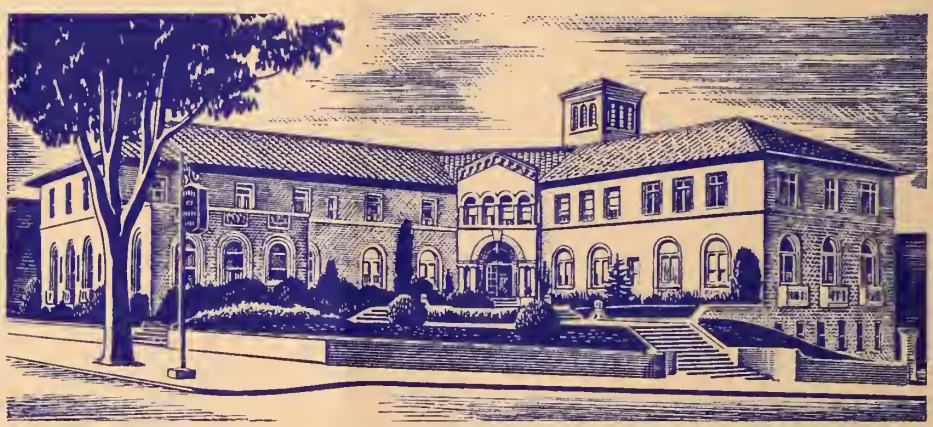
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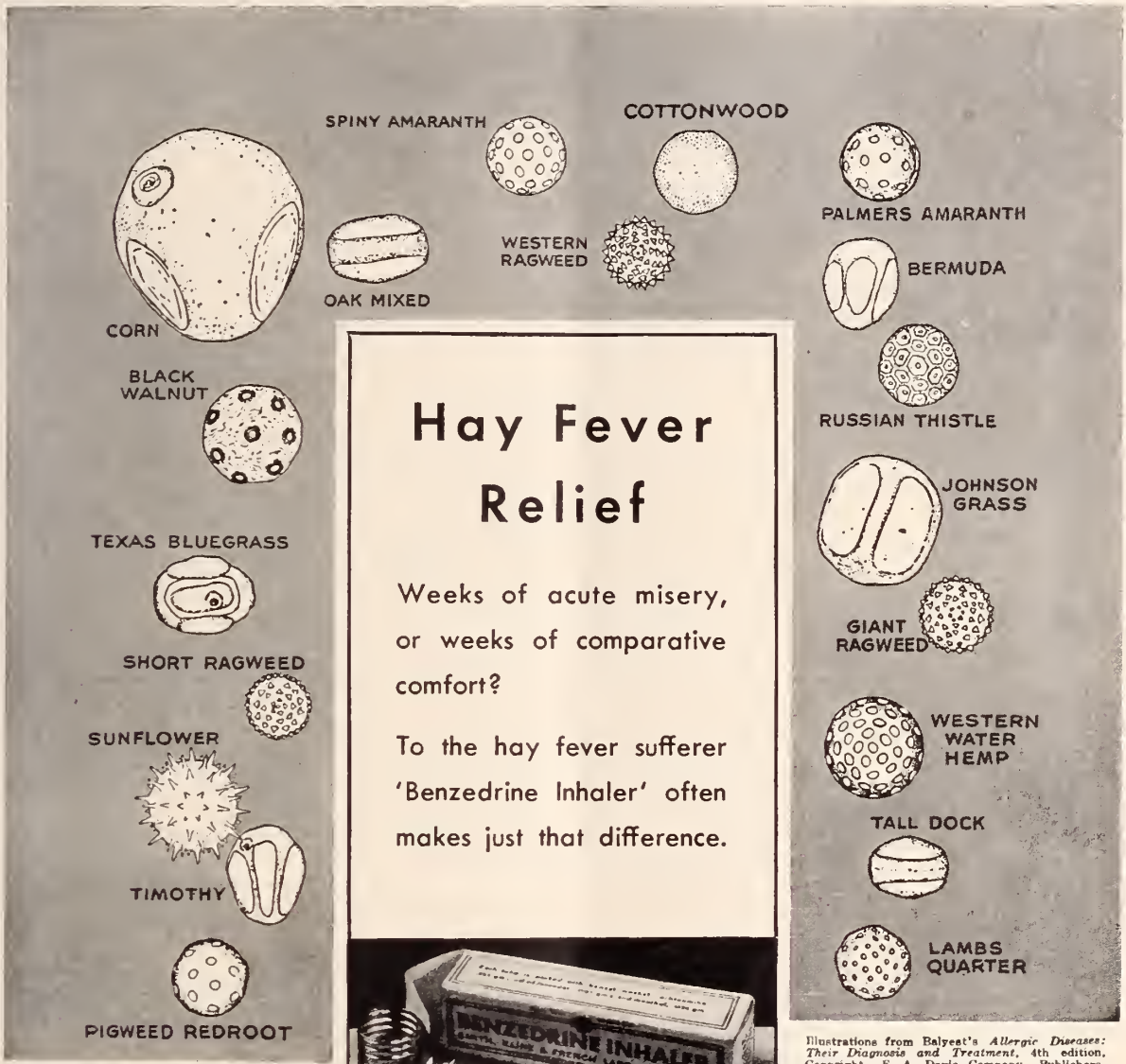
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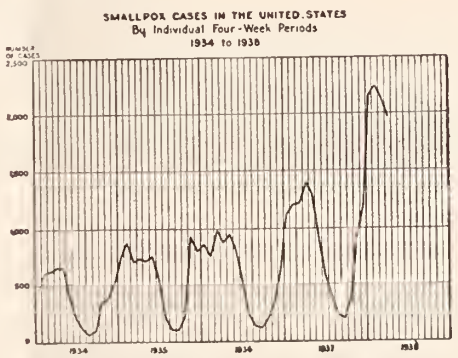
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—And yet SMALLPOX has been appearing with a more and more disheartening frequency of late.

Four years ago it seemed that this dangerous disease was at last coming under control and that it was only a question of time when smallpox would be finally eliminated as a major health problem in this country; but, the accompanying chart shows how far from this goal we are to-day.

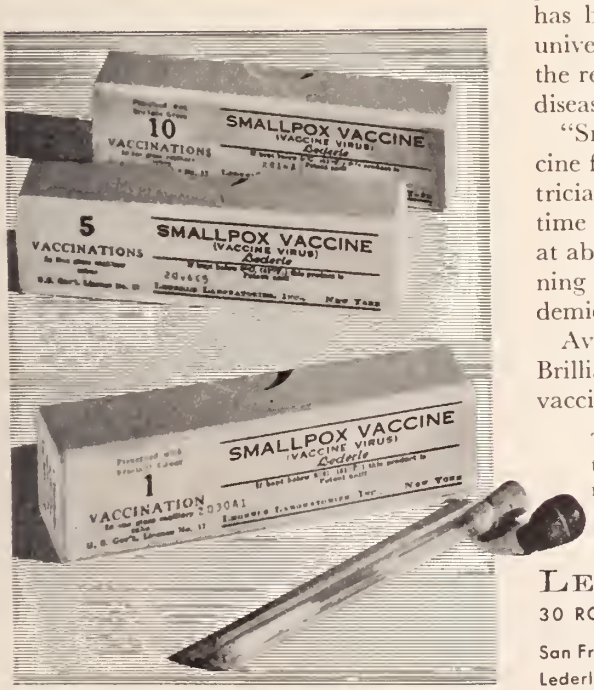


From the Statistical Bulletin, Metropolitan Life Ins. Co., 19: No. 5 (May) 1938.

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New Publications Concerning Venereal Diseases.—*Social Hygiene Nursing Techniques,* Nadine B. Geitz, R. N. Just off the press and just what every nurse and social worker needs. Pp. 84. Single copies, 30 cents postpaid. See the April *Journal of Social Hygiene* for text in full. *Syphilis—Its Cause—Its Spread—Its Cure,* published by the United States Public Health Service. Six-page leaflet, photographic illustrations. $1.00 per 100. Order directly from the U. S. P. H. S., Washington, D. C. *The A-B-C of Syphilis.* Facts about syphilis and gonorrhea told in brief statements, catchily phrased, and arranged in alphabetic order. Reprinted in a handy pocket edition by permission of the New Jersey State Department of Health. Attractively illustrated and reasonably priced. Single copies, 5c; 50 cents per dozen; $2.50 per 100.

It is becoming more and more important that the physician regard his patient as a social unit and not simply as a case of tuberculosis or cancer. Every patient is an integral part of society, an important biologic unit, a part of a greater whole, one piece in a larger design and no doctor is discharging his full obligation to either the patient or to society who is not fully aware of the social factors which predispose to disease. Conditions, in this respect, were not as bad seventy-five years ago as they are today. Then, the family physician was far more familiar with the social side of his patient's illness than the modern busy practitioner of today with an office practice, seeing twenty or more people within a few hours. He has no time to familiarize himself with the social and economic factors which influence the disease process in nearly every case.



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Smallpox in the United States.—According to the statistical bulletin of the Metropolitan Life Insurance Company, the year 1937 witnessed another rise in the incidence of smallpox throughout the greater part of the United States. Reports received during the year indicated 11,806 cases, as against 7,044 in 1936. Although the form of the disease now prevalent is mostly mild, the more deadly form might arise at any time. Indeed, such change in virulence has been noted in some epidemics. Curiously, smallpox is much more frequent in some of the less populous states, notably the eight northwestern states. The better situation existing in the more heavily populated eastern and seaboard states was not always as good as it is now. The communities in which smallpox is now so relatively common may suffer a serious epidemic before the unnecessary ravages of the disease are stopped. The number of cases reported and the continued trend upward are a direct reflection of the percentage of unvaccinated among the population.—*Journal of the American Medical Association*, July 2, 1938.

"The increase in 'nervous breakdowns' today is rarely due to 'overwork' but more often to 'over worry'. When chronic worry affects the appetite and sleepless nights follow, we must regard such symptoms as a warning of impending mental disease. On the other hand, enlightened self-interest demands that we worry. It is necessary to progress and achievement. Abraham Lincoln was a deeply furrowed and worried man. Nothing, indeed, worthwhile was ever accomplished without a great deal of worry. Certainly 'we should worry'—the interpretation of modern slang to the contrary, notwithstanding." — *The Health Officer.*

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Consulting Staff: Philip King Brown, M.D., San Francisco; Harold Guyon Trimble, M.D., Oakland; Cabot Brown, M.D., San Francisco

BOOK REVIEWS

Books received for review are placed in the Library of the California Medical Association, in its central office at San Francisco. Book reviews are written by the Association Secretary.

BOOKS RECEIVED

A Textbook of Physiology. By William D. Zoethout, Ph. D., Professor of Physiology in the Chicago College of Dental Surgery (Loyola University). Sixth edition. Cloth. Pp. 714, with 291 illustrations. Price, $4.00. St. Louis: The C. V. Mosby Company, 1938.

Electrotherapy and Light Therapy. By Richard Kovacs, M. D., Clinical Professor and Director of Physical Therapy, New York Polyclinic Medical School and Hospital; Physician in Charge, Physical Therapy, City Hospital, New York; Attending Physical Therapist, Manhattan and Harlem Valley State Hospitals, Rikers Island Hospital and West Side Hospital, New York; Consulting Physical Therapist, New York Infirmary for Women and Children and Mary Immaculate Hospital, Jamaica, New York and Hackensack Hospital, New Jersey. Third edition, thoroughly revised. Cloth. Pp. 744, illustrated with 307 engravings and a color plate. Price, $7.50. Philadelphia: Lea & Febiger, 1938.

The Life of Chevalier Jackson. An Autobiography. Cloth. Pp. 229, with many illustrations. Price, $3.50. New York: The Macmillan Company, 1938.

Diseases of the Nose, Throat and Ear. Medical and Surgical. By William Lincoln Ballenger, M. D., F. A. C. S., Late Professor of Otology, Rhinology and Laryngology, College of Medicine, University of Illinois, Chicago; Fellow of the American Laryngological Association; Fellow of the American Laryngological, Rhinological, and Otological Society; Fellow of the American Academy of Ophthalmology and Otolaryngology, and Howard Charles Ballenger, M. D., F. A. C. S., Assistant Professor of Otolaryngology, Northwestern University School of Medicine, Chicago; Surgeon, Department of Otolaryngology, Evanston Hospital, Evanston, Ill.; Fellow of the American Laryngological Association; Fellow of the American Laryngological, Rhinological and Otological Society; Fellow of the American Academy of Ophthalmology and Otolaryngology. Seventh edition, thoroughly revised. Cloth. Pp. 1,030, illustrated with 576 engravings and 30 plates. Price, $11. Philadelphia: Lea & Febiger, 1938.

BOOK REVIEWS

Medical Writing: The Technic and the Art. By Morris Fishbein, M. D., Editor, *Journal of the American Medical Association*, and Jewel F. Whelan, Assistant to the Editor. Cloth. Pp. 212. American Medical Association, Chicago.

A handy volume likely to be of some interest to any member of the medical fraternity, this clearly presented treatise will appeal particularly to those who, from time to time, promote medical publication, whether in bookmaking or by contributions to periodical literature; representing, as it does, the gradual evolution of a pamphlet originally used as a standard by the press of the American Medical Association, then a more pretentious book called "The Art and Practice of Medical Writing," by the late George H. Simmons, M. D., for years editor *Journal A. M. A.*, and Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*, and finally a revision of the previous work, with additional new material. What constitutes an acceptable paper for a medical magazine is discussed, and the matter of style, subject and material, construction of a manuscript, even words, phrases, spelling, capitalization, and proper and improper correcting after proofreading, are considered by experts of authority. Advice is also given as to the most effective preparation of charts and tables, and designs and engravings in general; and there is a supplement of abbreviations for periodicals recognized the world over, and so likely to be cited, necessarily with brevity, and—what is always so desirable—there is a practical index. The orthography approved of is that adopted for A. M. A. publications. Numerous illustrations make this admirable work of reference more serviceable; while a

(Continued on Page 15)



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BOOK REVIEWS

(Continued from Page 13)

handsome portrait of the late Dr. George H. Simmons (1852-1937), from a bronze relief at Association headquarters, properly adorns the volume.

J. B. Murphy: "The Stormy Petrel of Surgery." By Loyal Davis, M. D., M. S., Professor of Surgery, Northwestern University. Price $3. Obtainable through J. W. Stacey Book Company, San Francisco.

As one who knew Murphy, frequently saw him in his clinic or at medical meetings, this reviewer commends this book. Those who knew him will recall this character in American surgery. Others will be able to appreciate his career and personality.

Loyal Davis has presented the highlights of Murphy's life. By necessity, Davis was compelled to omit hundreds of instances, many dramatic, that might have been included in this tale of a surgeon who was admired and hated by thousands.

Read it. You'll enjoy it. Send to J. W. Stacey Company, Flood Building, San Francisco, for this narrative.

Prevention of Premature Senility. By Victor G. Vecki, M. D., San Francisco. Second edition, revised. With Foreword by Victor Robinson, M. D., Professor of History of Medicine, Temple University School of Medicine, Philadelphia. Paper. Pp. 126. New York: Froben Press, 1937.

The "ideal author" for such a volume of good advice regarding the prevention, if possible, of needless senility, according to Victor Robinson, Doctor Vecki is, himself, another victor, "his physical and mental vigor, on the threshold of eighty years, being quite remarkable." It is natural, therefore, that, as a leader in sexual science, the writings of the venerable San Franciscan should be characterized by virile straightforwardness; hence, what he has to say about the sexual life and marriage, as well as eating, drinking, smoking, constipation, obesity, exercise, work, sleep, and longevity will interest the supposedly informed man of medicine as well as the more groping layman.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 176)

From an Original Article on "The Symptomatology of Gall Bladder Disease," by Herbert C. Moffitt, M.D., San Francisco.—In 1905 I had the pleasure of reading a paper before this Society upon the clinical features of gall bladder and gall duct disease. The mass of publication since that time has brought a few new facts and points of view, but no one feature has been as frequently emphasized through many papers as the importance of a careful history of the patient in establishing an early diagnosis of these affections. . . .

From an Original Article on "The Work of the Pasteur Division of the State Hygienic Laboratory," by J. C. Geiger, M.D., Berkeley.—In an article written in 1910, Black and Powers reported a small outbreak of rabies among dogs in Los Angeles in 1898. They also reported a fatal human case in Pasadena in 1899, and another outbreak of rabies among dogs in the Soldiers' Home near Los Angeles in 1906. In Stimson's report on rabies, published in 1910, California was declared to be one of the states that was free from the disease. In 1909 the present epidemic began to attract attention, and two articles by Sawyer show the spread of the disease up to April 1, 1912. The spread of rabies has been continuous and rapid throughout the state. The toll of human deaths has been 18, and the loss of valuable live stock has been considerable. Organized efforts have been made to check its progress, but the lack of coöperation on the part of the county officials, and a bitter opposition from other sources, have greatly retarded the work so far. The presence of rabies in any given community will cause considerable excitement and the passage of numerous laws, which in time are forgotten. . . .

From an Original Article on "Comments on Tuberculin," by Jno. C. King, M.D., Banning.—The program demands from me a paper on tuberculin tests. Such a paper

(Continued on Next Page)



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TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

would be largely academic, mere quotations from so-called authorities. With your permission, I will, instead, endeavor to give a rambling talk on certain phases of tuberculin that have impressed me in my daily work. No man has any right to express an opinion upon a subject he has not investigated. My interest in this subject dates from Koch's first announcement, because I was then suffering from tuberculosis. Experience soon convinced me that tuberculin was too dangerous for me to use in general practice. For some years I wrote and spoke against it. About fifteen years ago I began to restudy it and to use it—cautiously. I have always been prejudiced against its use, but for a long series of years I have made from 7,000 to 10,000 injections annually. Regarding many points connected with it I have been unable to arrive at definite conclusions. Some few questions I have definitely settled in my own mind. . . .

From an Original Article on "The Intravenous Administration of Diphtheria Antitoxin" by Raymond Boileau Mixsell, A.B., M.D., Pasadena.—The administration of medication by way of the veins is not a recent invention. One of the earliest attempts at intravenous injection was made by Dr. Christopher Wren, Savilian Professor in the University of Oxford. His experiments consisted in the intravenous injection of cathartic substances, and were performed upon dogs during the year 1665. . . .

From an Original Article on "Carbohydrate Cures in Diabetes," by E. Schmoll, M.D., San Francisco.—A few years ago when Naunyn wrote his classical treatise on dia-

(Continued on Page 18)

BASIC OPERATIONS IN COMMERCIAL CANNING PROCEDURES

VI. COOLING THE TIN CONTAINER AFTER THERMAL PROCESSING

● On this page we have previously described certain basic operations in commercial canning procedures. These have included cleansing of the raw material; blanching; exhausting or pre-heating; sealing the tin container; and thermal processing of the sealed container. In this—the last of this series—we shall discuss the final basic operation, namely, the cooling of the sealed can immediately after the heat process.

One main reason for rapid and thorough cooling of the can contents—as soon as the objective of the heat treatment has been fulfilled—is more or less self-evident. Prompt cooling checks the action of the heat and thus prevents undue softening in texture or change in color of the food. Also important, particularly in the case of foods of an acid nature, is the prevention of excessive chemical action between the food and the metal container, which may occur if the contents of the can remain hot for an extended period of time. In modern practice, two types of cooling are commonly used, namely, air cooling and water cooling.

Air cooling, as the name implies, involves cooling of the tin container by facilitating radiation of its heat into the air. This type of cooling is adaptable to certain products in small cans. In other products, or in the case of larger cans, it is employed chiefly when the slower loss of heat, characteristic of this cooling method, is essential either for preservation of the food, or for the production of certain quality characteristics in the final product. Modern air cooling is accomplished in well ventilated, specially designed warehouses where the cans are piled in rows, allowing ample space between rows for efficient air circulation.

The several methods of water cooling and the technique by which they are carried out are detailed elsewhere (1). Briefly, water cooling may be effected in a variety of ways. The hot cans may be cooled by admitting water into the retort in which they were processed, or they may be cooled after removal from the retort by conveying the cans through tanks of cold, running water or through cold water showers. Large size, or irregularly shaped cans—processed under steam pressure—must be cooled in the closed retort at the end of the process to avoid undue strain on the containers. This is accomplished by "pressure cooling" in which pressure is maintained in the retort during the cooling of the cans, to counterbalance the pressure which develops during the process within the can itself. Commercially, cans are water-cooled to about 100°F. so that enough residual heat remains to dry the can exterior.

Present day canners are fully aware of the importance of cooling their products rapidly and completely as soon as the process is completed, in order to insure the production of canned foods with high quality characteristics. Consequently, in modern canneries the cooling operations are strictly supervised like the other basic operations in the commercial canning procedure. After inspection and labeling, the cooled cans are then ready to enter distribution channels for delivery to the consumer.

In this series of six discussions, we have attempted not only to describe the basic steps in commercial canning procedures, but also to explain their purposes. We trust this series may help bring a better understanding of this important method of food preservation.

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(1) 1936. A Complete Course in Canning, 6th Ed. The Canning Trade, Baltimore.

This is the thirty-ninth in a series of monthly articles, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research. We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

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TWENTY-FIVE YEARS AGO

(Continued from Page 16)

betes, the treatment of this metabolic disturbance seemed to be established on a foundation equally supported by our theoretical conception of the nature of the disease, as well as by practical experience. I remember that, at that time discussing the pathology of glycosuria, Professor Alonzo Taylor and I agreed that it was the clearest chapter of the pathology of metabolism, and that the only point needing further investigation was the prevention of acidosis. . . .

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 176)

Andrew Lee Wallace, M.D., Los Angeles, cited on the basis of his conviction in connection with the ambulance chasing-insurance fraud cases, was found guilty and on June 28, 1938, he was placed on probation for a period of five years.

Richard Whittaker, M.D., Los Angeles, cited on the basis of conviction in connection with the ambulance chasing-insurance fraud cases, was found guilty and on June 28, 1938, he was placed on probation for a period of five years.

The cases of John F. Diddle, M. D., Oakland; Harold J. Hamilton, Drugless Practitioner, San Francisco; Phillip E. Gardner, Drugless Practitioner, Los Angeles; Arthur F. Gill, M. D., Banning; Isidore A. Wallach, M. D., Los Angeles; Edward Huntington Williams, M.D., Los Angeles, were dismissed.

The hearing of Henry L. Gardner, M.D., San Francisco, charged January 6, 1933, with aiding and abetting in connection with the Pacific Health Corporation, was continued to the next meeting of the Board.

The charge of alleged illegal operation against Milton S. McMurtry, M. D., Clovis, was continued to the next regular meeting because of an automobile accident to the complaining witness.



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The hearing of Thomas D. Wyatt, M.D., Redding, on charges filed September 18, 1936, as well as citation issued October 19, 1937, was continued to the October meeting.

The hearing of William H. Young, M.D., against whom three citations have been issued, based upon his asserted connection with the Samaritan Treatment for Alcoholism, was delayed because of a Restraining Order issued by the San Francisco Superior Court, returnable July 7, 1938, i. e., a week after the Board meeting would close.

Petitions for restoration of license were granted in the following instances:

Frank T. Cary, M.D., revoked June 30, 1937, based on narcotic conviction, was restored June 27, 1938, and he was placed on probation for a period of five years, without narcotic privileges.

The certificate of Leo M. Schulman, M.D., revoked February 11, 1937, was on June 27, 1938, restored and he was placed on probation for a period of five years without narcotic privileges.

Francis White Steddom, M.D., whose certificate was revoked July 1, 1937, was restored June 30, 1938, and he was placed on probation for a period of five years, without narcotic privileges.

News

"Twenty-one alien physicians, most of them from Germany, were denied the privilege of practicing medicine in Texas by the State Board of Medical Examiners. The group included three from Mexico, one Japanese, and seventeen Germans." (Associated Press Dispatch, dated San Antonio, Texas, June 20, published San Francisco *Examiner*, June 21, 1938.)

"The United Provident Association, an Oakland group organized to furnish medical and surgical care to its members, filed articles of incorporation with Secretary of State Frank C. Jordan." (Sacramento *Bee*, June 11, 1938.)

(Continued on Page 21)



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(Continued from Page 19)

"A new position as President of the recently organized Medico-Legal Association will take Dr. Frederick C. Warnshuis, former Secretary of the California Medical Association, from San Francisco today. . . . His main job will be to coördinate medico-legal practices throughout the nation. His headquarters will be in Boston." (San Francisco *Examiner*, July 7, 1938.)

"A plan prepared by Harry B. Riley, State Controller, to deduct payments for health insurance from state employees' pay checks, was frowned upon today by U. S. Webb, Attorney General, who stated that Riley has no authority to inaugurate such a system. Riley, at the urging of John J. Hamlin, Attorney for the California State Employees' Association, had expressed willingness to set up such a system for voluntary deduction; however, Webb emphasized that at the last session of the Legislature the bill authorizing such a system had failed to pass." (San Francisco *Call-Bulletin*, June 15, 1938.)

"Smashing an alleged scheme to import white dancing girls to Oakland for the entertainment of Filipinos, police today held one man in jail and planned to question three young women, following a raid last night. . . . They arrested Ralph P. Iturralde, age thirty-four, who gave his address as the 'University of California.' . . . Later, after interviewing his white wife at 169 Eleventh Street, Oakland, they held Iturralde for investigation for the State Board of Medical Examiners. Iturralde, police asserted, was reported to have practiced medicine in Oakland without a

(Continued on Next Page)

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

license. He is a Works Progress Administration worker, police said, on a project at the University . . ." (Oakland *Post-Inquirer,* June 13, 1938.)

"Edward P. Fewer, fugitive Dean of a Polk Street Chiropractic school and clinic, returned to San Francisco from Texas yesterday as an extradited prisoner. Arrested last month with Mortimer E. Timm, Densmore Henschell, and Dan C. Lindsey, Fewer was charged by agents of the State Board of Medical Examiners, of conspiracy to violate provisions of the Business and Professions Code, through illegal performance of surgery." (San Francisco *Examiner,* June 16, 1938.)

"With surrender of Dr. E. E. Stone, well-known Los Angeles physician, on a secret indictment returned Wednesday, immigration agents said yesterday they had broken up a ring which had schemed to defeat the immigration laws. The indictment charged Doctor Stone and Dr. E. Hughes, his associate, had prepared false affidavits which represented that Franz Todin and Jeronim Movar, Jugo-Slavian aliens, had property interests in this country and would not become public charges. To substantiate these claims a series of fraudulent transfers of property were made by the other defendants, the indictment charged. . . . Immigration officers indicated others were involved in the plot, including two attorneys, and that more arrests would follow." (Los Angeles *Daily News,* June 17, 1938.)

"Governor Merriam today announced the following appointments to the Board of Osteopathic Examiners:

Lester R. Daniels, Sacramento, for the term ending December 31, 1938; Edward Grant Jones, Los Angeles, 1940; Warren R. Davis, Long Beach, 1940; and Ernest G. Bashor, Los Angeles, 1939." (Press Dispatch, dated Sacramento, June 18, printed San Francisco *News,* June 18, 1938.)

"The resignation of Dr. O. H. Perry as Resident Physician of the Sutter County Hospital, is in the hands of the Board of Supervisors. It is believed the resignation may end the long controversy over the management of that institution. . . . The resignation was accepted and will become effective July 1 if the supervisors are able, by that time, to select his successor. . . ." (Sacramento *Bee,* June 24, 1938.)

"The appeals of two convicted abortionists were taken under advisement following oral argument yesterday before

(Continued on Page 26)

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BOARD OF MEDICAL EXAMINERS

(Continued from Page 22)

the State District Court of Appeal. Reversals of the lower court judgments were asked by Dr. Claude C. Long, found guilty of manslaughter, and Max Hickok (Chiropractor), convicted of second degree murder." (San Francisco *Examiner*, June 28, 1938.)

"Termination of a county jail sentence for Dr. Louis Kameny, convicted of conspiracy to commit grand theft, was granted today by Superior Judge Lincoln S. Church. Judge Church freed Kameny, Oakland doctor, so that he might defend himself against an action to revoke his physician's license by the State Board of Medical Examiners early in July. He was freed July 1 but must report to probation officers until December, 1940. Doctor Kameny was convicted last December after an attempt to collect fraudulent insurance for injuries suffered in a beauty parlor accident by Mrs. Adrienne Udstone. He was sentenced to a year's jail term. Emil Grossman, Oakland, is serving one to ten years' sentence in San Quentin for the same charge. Mrs. Udstone was acquitted." (Oakland *Post-Enquirer*, June 28, 1938.)

"W. M. Lukasky, Anaheim masseur, stood accused today of victimizing an almost blind nineteen year old Long Beach girl by telling her he could prevent her blindness by massage. Lukasky and three women assistants were arrested by W. N. Anderson, Special Agent for the State Board of Medical Examiners, and Constable Ed. Marion, arraigned in Anaheim Justice Court yesterday and their jury trial set for July 19. Lukasky was unsuccessfully prosecuted on a similar charge here two years ago and had been convicted previously in Long Beach after an appeal for a new trial. . . ." (Santa Ana *Journal*, June 17, 1938.)

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"Lillian P. Parker, Long Beach nurse, yesterday was sentenced to serve nine months in the county jail and was given five years' probation by Superior Judge W. Turney Fox, who convicted her last June 10 of performing an illegal operation. Judge Fox, who heard the case without a jury in Long Beach on special assignment, gave Miss Parker five years' probation on condition that she serve nine months in jail, but he ruled she was entitled to a deduction of twenty days already served. During probation she shall not engage in or be connected with nursing or the medical profession." (Los Angeles *Daily News*, June 20, 1938.)

"In the San Francisco Hospital yesterday lay twenty year old Mrs. Margaret Babbino. In the Babbino apartment at No. 6 Harwood Alley, on the slope of Telegraph Hill, sat her worried twenty-one year old husband, Robert, a WPA worker. In the hospital Mrs. Babbino fought death brought close by a clumsily performed illegal operation six days ago. On June 25 an operation was performed. A few days later Mrs. Babbino developed a fever and was taken to the hospital suffering from an infection." (San Francisco *Chronicle*, July 2, 1938.)

"Laboratory Made" Vitamin E Brings Rat Fertility. —For the first time in medical or biologic history a living creature rendered sterile through the absence of vitamin E, discovered in the University of California sixteen years ago, has been made fertile through dosages with the synthetic vitamin in minute portions (three milligrams). Sterile rats of both sexes in the laboratory of Dr. Herbert M. Evans, director of the University's Institute of Experimental Biology, and discoverer of the vitamin, were given the substance in synthetic form developed from coal tar by Professor Lee Irvin Smith and his associates in the Uni-

(Continued on Page 30)

BREAST SUPPORTS

An author* in the current medical literature, after reviewing the histories of 518 patients with carcinoma of the breast, gives the following practical suggestions which might prevent the development of precancerous lesions.

"1. More careful history-taking with an accurate analysis of the history . . .

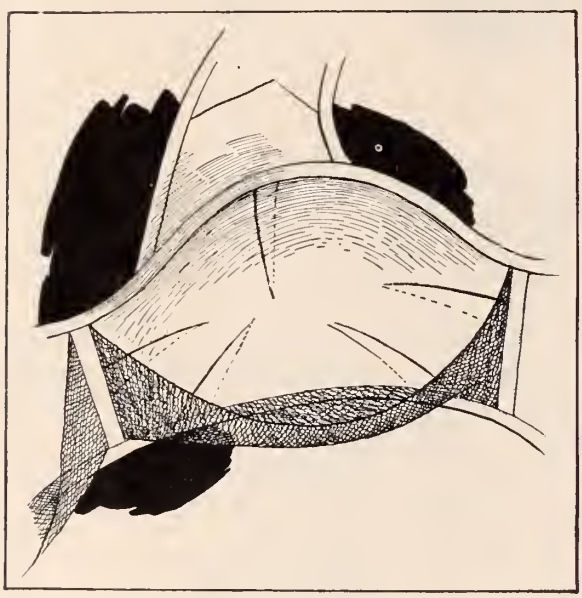
2. Education of mothers as to the necessity of nursing their babies . . .

3. If for any real reason the mothers are not able to nurse their babies, insistence on the use of a breast pump (preferably an electric one) . . .

4. More careful attention to the care of the nipples.

5. Correction of pelvic disorders especially when there is any pain in either breast during the menstrual periods.

6. More consideration to the proper support of the breast at all times."



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*Surgery, Gynecology and Obstetrics, Vol. 65, September, 1937.

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* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

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I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

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FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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(Continued from Page 27)

versity of Minnesota. Fertility of the rats resulted from the synthetic product, the same as it had resulted from the empirical product produced by Doctor Evans and his staff.

While Doctor Evans will make no prognostication of the results of this discovery on the fertility or infertility of the human race, he regards it as the climax of an era of vitamin E experimentation— an era so successful that it is to be detailed by Doctor Evans to the leading physiologists of the world, gathered in the International Physiological Congress in Zurich, Switzerland, August 14–18.

Not only does the discovery place substantial portions of the vitamin in the hands of scientists at a greatly reduced cost, for both human and animal experimentation, but it sweeps aside many of the baffling difficulties that stood in the way of obtaining the vitamin in its pure form. It now provides a base of experimentation far more easy of application than that which accompanied the development of the vitamin to its crystalline form (tocopherol) from natural sources such as wheat germ oil, cottonseed oil, lettuce leaf oil, palm oil, etc.

"This closes an important era in vitamin E research, for it established its structural as well as its empirical formula," Doctor Evans said. "Certain details of the spacial configurations of the molecule will probably have to be settled by different types of syntheses, which are being attempted by Professor Smith and other chemists."

The production of fertility in rats from a vitamin "manufactured in a laboratory," comes as the major development to date on a discovery that has engaged world wide attention from the start.

Cyclotron Product Throws New Light on Deadly Disease.—Experiments conducted with the treatment of leukemia in white mice by use of radio-active phosphorus manufactured in the world-famous atom-smashing cyclotron at the University of California have revealed some new information about one of the world's deadliest diseases.



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Dr. John H. Lawrence, assistant professor of medicine, told members of the American Medical Association in San Francisco recently, that tissues, such as those of the bones, liver, and spleen, in which the leukemia cells concentrate absorb a much higher percentage of the radio-active phosphorus than do normal cells. Furthermore, the amount of phosphorus absorbed by diseased tissue is proportional to the degree of leukemia present.

To support his conclusion he showed the results of experiments conducted with the aid of K. G. Scott, graduate student in chemistry, in the new Radiation Laboratory on the Berkeley campus. Normal mice and mice which had leukemia were both given radio-active phosphorus, either by injection or by introduction into the body through a stomach tube.

In the first group of mice on which experiments were conducted five had received an injection containing 8,220,000 leukemia cells. Two of the animals designated as Group A, showed very large spleens, lymph glands, and livers, which indicated advanced cases of leukemia. Group B, containing three mice, showed no signs of gross leukemia, but microscopic study revealed presence of leukemia cells in the livers, kidneys, and spleens. The third group, Group C, were the control animals and showed no signs of leukemia.

Group A retained 80.4 per cent of the total dose of radio-active phosphorus, Group B 76 per cent, and Group C only 53.4 per cent. Thus, the animals with leukemia retained about one and one-half times as much of the phosphorus administered as did the normal mice. The liver, spleens, and lymph glands of the leukemia animals contained from two and one-half to eight times as much of the radio-active element as did normal tissue.

Experiments carried on with two other groups of mice showed similar results.

The mice used in these experiments belonged to the so-called Strong A strain which is known throughout the world and is widely used by research workers. Only recently has it been possible to produce leukemia, which is an overgrowth of the white blood cells, into this strain. At present no successful treatment for leukemia is known. However, the disease in mice is very similar to that in man and, by using mice from the Strong A strain, studies of the cause of the disease and its treatment can be carried on in the laboratory with ease.

The selective concentration of radio-active phosphorus in the lymph glands, spleens, livers, and bones of leukemia-stricken mice affords a possible method of therapeutic irradiation in treating the disease in these animals. It is possible that the continuation of such experiments may, in time, lead to a treatment which may be tried on human subjects.

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OFFICIAL JOURNAL OF THE CALIFORNIA MEDICAL ASSOCIATION

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EDITOR GEORGE H. KRESS

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Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

"NATIONAL HEALTH CONFERENCE"

Interdepartmental Committee.—Among other by-results of the Social Security Act, a provision was enacted in 1935 for an Interdepartmental Committee, consisting of the assistant secretaries of the United States Treasury, Departments of the Interior, Agriculture and Labor, and the chairman of the Social Security Board. One of the early acts of the Interdepartmental Committee was to call a "National Health Conference," to which were invited representatives of the medical profession, allied groups and the public, to discuss public health and related problems, and to formulate principles and recommendations pertaining thereto.

* * *

Eight Hundred and Fifty Million Dollars, the Estimated Need.—Without going into detail, it suffices to state that this Presidential Committee—for that is the name given by the press to the National Health Conference endeavor—convened in Washington on July 17, and promptly recommended, as necessary for a national public health program, so massive a yearly sum as $850,000,000 (eight hundred and fifty million dollars); half the amount to be allocated from federal sources, the other half to be supplied by state, county and local governments. According to this recommendation, the money so appropriated was to be utilized not only for general public health work as part of an extensive program, but in part, also, for medical care and hospitalization of needy citizens. It does not necessitate prolonged study or thought by physicians who have studied such experiments to make apparent the conclusion that such a program, if carried out, would, of course, soon drift into the sea of state medicine!

* * *

Opinions of President Roosevelt and Others. That the program outlined had the sponsorship of President Franklin D. Roosevelt may be inferred from his statement to the Conference that "millions of citizens lack the individual means to pay for adequate medical care," and that a "coördinated national program of action" was imperative.

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

Dr. Irvin Abell, president of the American Medical Association, at once called attention to the dangers of such a program, and the difficulties that must be encountered in devising a governmental plan adapted to widely different sections of the country. Dr. Hugh Cabot of the Mayo Clinic, on the other hand, in his espoused report, criticized the American Medical Association for not meeting its responsibilities. Similar statements were given by Mr. Lee Pressman, legal counsel for the CIO, who felt that the plan proposed should be kept "free of control by the heirachy of medicine." Dr. Olin West, secretary of the American Medical Association, on the contrary, again emphasized the risks inherent in medical practice if that were to be under the domination of political forces such as exist in the United States, and Dr. Morris Fishbein, editor of the *Journal of the American Medical Association*, suggested that first efforts to alleviate human morbidity might better be directed in support of work that would do away with underlying poverty and deplorable social welfare conditions clearly causative factors in creating illnesses that might otherwise have been prevented.

* * *

California's Experience.—California is fortunate in that methods to overcome whatever deficiencies may exist are being tried out along constructive lines in Alameda and other counties. It will be of interest, therefore, to note what new federal and state legislation, if any, this recent "National Health Conference" will, after its labors, induce.

PASSING OF JOSEPH P. WIDNEY, FOUNDER OF THE LOS ANGELES COUNTY MEDICAL ASSOCIATION

To have lived to the ripe old age of 97, with a mind keen and alert up to its last hours, despite such physical handicaps as a frail body and practical blindness, is an experience that has not often come to human beings. Yet such was the life* of Dr. Joseph Pomeroy Widney, whose death took place at Los Angeles on July 4, 1938.

Doctor Widney, it will be recalled, was the motivating spirit in the founders group which organized the Los Angeles County Medical Association on January 31, 1871, some sixty-seven years ago, and he—who in recent years was the oldest living graduate of the University of California (having received his M. D. degree from Toland Medical College in 1866)—also founded the College of Medicine of the University of Southern California in the year 1885. Later, in the financial panic of the nineties, he resigned as dean of the University of Southern California Medical Department in order to take over the responsibility of saving the University of Southern California at a time when its properties were about to be levied on by the courts; guaranteeing with his personal resources as he assumed the presidency the payment of the claims pending against the institution.

Born in Ohio in 1841, so far back that he recalled a childhood amid the wigwams of Indians, a soldier in the War Between the States and an assistant surgeon in Indian campaigns in Arizona, while successful as a physician in private practice in Los Angeles, he became the founder of a county medical society that is today one of the largest in the United States. He was also founder and dean of a medical school, and president and protector and saviour of the University of Southern California in its early days of life and death struggle. As a civic worker he had a broad and far-seeing vision of railroad, harbor and other developments, on a massive scale, for the southern section of California. Also minister of the gospel, and founder of a settlement house, and devotee of the gospel work, author of volumes of historical and other essays,† including a large two-volume "Race Life of the Aryan Peoples," he proved himself a kindly philosopher, with a mind richly stored with knowledge of the past, and ever alert and inquiring as to the significance of current changes and events. Dr. Joseph Pomeroy Widney's life was indeed such as is granted to but few men to enjoy.

And so, once more, a great man has been gathered to his fathers.

The following two essays, "Why Is Death?" and "Heaven," both written by Doctor Widney a few days before his death, are here printed as an *In Memoriam* to a beloved physician, whose name the California Medical Association may well place on its honor roll, and for all time to come:

WHY IS DEATH?*

Across the pathway of life, and apparently bringing it to an end, is Death, and from the earliest antiquity men have been asking the question, "Why death at all?" "Does it serve any useful purpose in the Drama of Life?" The answer is Yes, without death the drama of life would be a failure. The purpose of that drama is—The Making of a Man: not simply for time, but for eternity. That making is what has been called Evolution. Through all the years of his life man has been growing. It is the law of evolution, that is, of growth. The planet grows. It is first a gaseous nebula. It then becomes a habitable world. The man's body through which he works is a necessary attendant upon that life. A man may will that a brick shall place itself at a certain point in a wall which he is building—it does not obey. But he may will that hand to take that brick and put it into its proper place. It is matter acting upon matter through the use of matter. It is so in all phenomena of life. The subtle and intangible will of the spirit has acted upon matter. But, in this circuitous way, man realizes that he is hampered and restricted in his work.

Man is restricted in his knowledge of the world about him. He had thought that the seven prismatic colors were all. By using the chemical paper, he now knows there is an infra-red and an ultra-violet which he does not see. It is so in every department of human inquiry. It is so in the pitch, in the low and the high notes in music, and it is so in all the broad field of strange, intangible rays of power and light that come to us from the universe about us.

Shall man be stopped in his intellectual evolution by the limited range of the possibilities of further investigations in

* Biographical sketches of the late Dr. Joseph Pomeroy Widney appeared in CALIFORNIA AND WESTERN MEDICINE in the following issues: Vol. 44, No. 4, April, 1936, page 292; Vol. 44, No. 5, May, 1936, page 396; Vol. 46, No. 6, June, 1937, page 398.

† Doctor Widney was the author of the following volumes: "Race Life of the Aryan Peoples," "The Lure of the Land," "Three Americas," "A Greater Los Angeles," "A New Europe," "A New Orient," "Studies of Other Worlds."

* This essay was dictated by Dr. Joseph P. Widney on June 29, 1938, his death occurring five days later, on July 4, 1938.

the universe about him, because of the material limitations of the body through which, in this life, he must work? There is no escape from these limitations unless he is released from the body which defines them. This is why Death! Death is simply *release* that men may go on.

This is what every religion tries to explain. Man set free from the shackles that impede his progress that he may go on. It is not a calamity. It is a blessing in disguise. It is like the blessing of toil placed upon primitive man that he might work and progress.

The idle man in Paradise had failed. The man who went out from Eden to toil with the briars and brambles of a fertile earth that he might have food succeeded.

But the time comes when a man, even with all his achievements, reaches the limit. He can go no farther in a lifetime. Is his progress to cease? Death in this life has answered the question. Death is not a calamity! Man may still go on; Death may be the sum total of his experiences. It is the greatest blessing to man that God has made. Die—and go on!

Is this death to be all or does Eternity hold other deaths yet to come?

We deem that this life is not all, but is only one stage in the evolution of man upon earth. Eternal life upon this planet is withheld from man. The story is thus told in Genesis III, Verses 22, 23, 24.

(22) "And the Lord God said, Behold, the man is become as one of us, to know good and evil: and now, lest he put forth his hand and take also of the tree of life, and eat, and live forever:

(23) "Therefore the Lord God sent him forth from the garden of Eden, to till the ground from whence he was taken.

(24) "So he drove out the man: and he placed at the East of the Garden of Eden Cherubim, and a flaming sword which turned every way, to guard the way of the tree of life."

Eternal life upon earth—do we realize what it would mean? The body grows old—it has worn out its material envelope. Age, and a life properly lived, brings with it maturity. After maturity there follows decay.

* * *

HEAVEN†

Heaven—What is it?—When?—Where?

What conclusion must we draw from the many beliefs of the ancient and modern writers? Only one conclusion will be possible, that we are mistaken utterly in the meaning of the word Heaven. Everywhere in the Universe we find the law of eternal growth and eternal deterioration. It seems to be the same in every department of the Universe—material, intellectual, and spiritual. The pleasures of heaven lie in the thought:

I, too, am a sharer in the development of the worlds about me, a sharer with God, therefore forever sharing in the mind of the Supreme Maker of the Law. Was this not the deeper meaning of the word spoken by the Supreme Ruler—when discussing the future of man upon earth, *"He will become as one of us—knowing good and evil"?* The thought is, if in this lower sphere man should eat of the tree of life and live and gain eternal life, would it be death to his soul?

Life as we know it upon this plane is to be lived by successive births and consequent deaths; the soul progressing and developing in accordance with the fixed and unchanging law spoken in the beginning.

† This essay, dictated on the succeeding day, June 30, 1938, was given to his secretary, with the words, "This is my last chapter."

ROENTGENOLOGY, PATHOLOGY AND ANESTHESIOLOGY IN HOSPITALS

Growth of the Hospital System in the United States.—Problems in policy that are not vexatious are usually easily solved. By contrast, an example of a vexatious proposition, presented during the last few years at each annual session of the American Medical Association, is that dealing with the status of physicians specializing in pathology, roentgenology and anesthesia, and relating to their work in hospitals. The confusion has arisen because, in part, the standardization rules for hospitals, as laid down within the last decade or so by both the Council on Medical Education and Hospitals of the American Medical Association and the American College of Surgeons, have not only stressed the importance of hospitals maintaining high standards in these three specialties, but have practically denied to institutions not properly staffed therein places on the lists of Accredited and Approved Hospitals. That fact, with the trend within the medical profession itself not only to utilize hospital facilities for patients for a larger number of diseases and surgical conditions than in prior periods, but to send patients to the institutions almost at the onset of certain medical or surgical conditions, has resulted in the education of the public and their understanding that patients undergoing hospitalization should have the right to expect a high type of roentgenologic, pathologic and anesthesia service as part of routine hospital régime. It is not to be wondered at, therefore, that surface differences of opinion between some hospital administrators and physicians devoting themselves to the above specialties should have arisen.

* * *

The Ten Principles Enunciated by the American Medical Association.—At the 1934 American Medical Association annual session, its House of Delegates enunciated ten principles that have been generally accepted by the constituent state medical associations. This year, at San Francisco, additional representations on the subject were made by delegates from California, Massachusetts and other states, and by action duly taken. Paragraph 4 of these ten pronouncements was amplified by the addition of the following clarifying statement:

"If for any reason it is found desirable or necessary to include special medical services such as anesthesia, radiology, pathology or medical services provided by out-patient departments, these services may be included only on the condition that specified cash payments be made by the hospitalization organization directly to the subscribers for the cost of the services."

* * *

California Medical Association Is in Accord. The action so taken at the recent June session of the American Medical Association is in line with similar motions previously adopted by the constituted authorities of the California Medical Association. The attention of hospitals, and of hospitalization groups, and of physicians generally is directed to this amplification of the ten American Medical Association principles as a rule for their guidance. Back of all the discussion are two important facts: first, that roentgenologists, pathologists and anesthetists are members of the medical profession, with all the rights and privileges possessed by their fellow physicians in general practice or other specialties; and, secondly, that no corporation shall practice medicine, this latter rule

meaning, in law, that none other than a graduate physician, duly licensed, shall have the legal right to practice medicine. When these two principles are kept inviolate, there can be little basis for difference of opinion.

CONCERNING LEGAL RIGHT FOR COUNTY HOSPITAL CHARGES

Recent County Hospital Articles in the Official Journal.—CALIFORNIA AND WESTERN MEDICINE, for several months past, has printed a number of articles concerning bills for hospitalization services rendered to supposedly indigent patients who had been admitted to county hospitals for treatment. The legal right of county boards of supervisors, under certain conditions, to make such charges was questioned. A perusal of the articles referred to,* and particularly of several legal opinions therein, will indicate the lines along which exceptions were taken, particularly in relation to charges rendered to patients by the Los Angeles County General Hospital. However, the points of view to which expression was given by our friends in the legal profession in the comments referred to were not concurred in by the legal advisors of the Board of Supervisors (the County Counsel's Department of Los Angeles County); and, recently, a formal opinion was rendered by that County's Counsel in which it was stated practically that according to the law of California, county boards of supervisors have the legal right to charge all citizens for hospitalization at such rates as the supervisors may lay down, and without regard to whether the citizens receiving such care are indigents, near-indigents, or nonindigents.

* * *

Opinion of the Legal Counsel of the California Medical Association.—A copy of this County Counsel's opinion was sent to the legal counsel of the California Medical Association, Mr. Hartley Peart, with request for his informal judgment and his reply is printed on page 157 of this issue.

This later opinion is commended to the thoughtful perusal of members of the Association, and particularly to the members of county medical society committees on county hospitals. The issues involved are of great importance to California physicians, for the reason that enforcement of procedures recommended or sustained by the legal advisors to county boards of supervisors (especially if such opinions be in error) could result in great damage to public health interests and medical practice. It is to be remembered that boards of supervisors should abide by the opinions of their duly authorized legal advisors, because when public officials fail to follow the advice of their duly constituted legal advisors they do so at risk to themselves and their bondsmen. However, the mere fact that a county counsel, or one of his deputies, presents a legal opinion does not make such an opinion sound law.

One of the functions of courts is to decide what is and what is not the law: yet, until an official legal opinion is reversed in the courts, such an opinion is assumed to be the law. In the matter here referred to, one attorney, who happens to be a legal advisor of a board of supervisors, has rendered his opinion to such a board. In this issue will be found the opinion of another attorney—in this instance the legal advisor of the California Medical Association—who holds contrariwise to that of a county counsel. The points brought out by the legal counsel of the California Medical Association, Mr. Peart, are worthy of careful thought, and should be read by all physicians who are interested in the issues involved.

AN ILLUMINATING MAP

Adequacy and Inadequacy of Medical Care. During the last several years much has been written concerning "The Adequacy of Medical Care." When criticisms stressing the "Inadequacy" of Medical Care (as propounded by sociologic and other propagandists) are analyzed, it is often found that the seeming deficiencies in medical service, as they exist in the minds of writers of such articles, are based on what might be termed thought confusion, in that the critics demanded, among other idealistic provisions, as a fundamental requirement of adequacy, the existence of hospitalization and associated facilities for every part of the United States, paying little regard to such important matters as population and economic and sociologic conditions, and geographic and other environments.

Disparaging statements concerning the methods of present-day medical practice are not confined, however, to lay sources; because even within the profession a certain number of physicians seem to have been so carried off their feet in adulation of group and hospital practice that they also have become exponents, both orally and in writing, of similar thought-trends favorable to change in the practice of medicine.

* * *

The Map Is Worthy of Study.—This being unfortunately the case, a study of the black and white map, printed on pages 258 and 259 in the July 16, 1938, issue of the *Journal of the American Medical Association*, and showing the distribution of hospitals in the United States, is respectfully commended for all dissenters. The map shows that hospitalization facilities exist within thirty miles of places of residence of 98.5 per cent of the citizens of the United States! A distribution of hospitals such as that, in turn, necessarily means there is a supply of physicians in the districts sufficient to maintain such hospitals. Certainly when such figures are considered in relation to basic implications concerning facilities for medical care have we not a right to be surprised when we hear sociologic reformers and allied supporters prating about "inadequacy" of modern-day medical facilities? Readers who have not scanned the map referred to, and also the editorial comments as given on page 257 of the *Journal of the Ameri-*

* References referred to appear in a footnote in CALIFORNIA AND WESTERN MEDICINE, February, 1938, on page 74.

can Medical Association, should take time for such study, keeping in mind the topography and other conditions of the Great American Desert, the Western Plains and the Continental Divide, in which are located most of the sparsely hospitalized areas marked on the map by solid black.

"HUMANE DOG POUND" INITIATIVE WILL BE ON THE GENERAL ELECTION BALLOT ON NOVEMBER 8

The words, "Humane Dog Pound," as they will appear on the ballots for a proposed initiative law that will have a place at the general election on November 8 sound euphoneous to most ears, even though, as a matter of fact, the law, if enacted, when actually analyzed, will be found nothing else than another "antivivisection" measure.

Certain facts, therefore, should be kept in mind, to wit:

For a number of years, at annual and, later, at biennial sessions of the California Legislature, proposed laws have been submitted by the "Antivivisectionists," and in each recurring battle proponents of the measures have gone down to defeat.

The last engagement of forces is yet remembered by those who were "at the front," not forgetting the "battles of the blondes."

Presumably, from these previous experiences, the California proponents of such measures have come to the conclusion that it were best to try quite a different mode of attack. In this decision they are supposedly aided by "foundations," "bequests" and other extra-state sources; and, as a result, in this year, 1938, the voting citizens of California, on their November 8 general election ballots, will have brought to their direct attention, as one of the initiatives to be voted upon, the

"Humane Dog Pound Law!"

Elsewhere in this issue (on page 172) appear other comments on this subject. Members of the Association who are interested—and every member of the California Medical Association, without exception, has abundant right to be interested—should feel free to write for literature and other information to the California Society for the Promotion of Medical Research, 369 Pine Street, San Francisco.

That organization is bearing the brunt of the fight against this objectionable measure; in our opinion, so decidedly *inhumane* to both human beings and animals. And remember, also, that to promote the work of that organization—the California Society for the Promotion of Medical Research—it would be in order to apply for membership. Here is one place for action where it will be splendid to be a "joiner"!

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 154.

EDITORIAL COMMENT†

SURGICAL TREATMENT OF HYPERTENSION

Since 1923, when Danielopolu[1] first suggested the surgical resection of the splanchnic nerves for the reduction of heightened blood pressure, there have been a number of procedures advocated by various observers that might be justifiably applied in malignant hypertension, in view of the fact that the condition is inevitably fatal. Direct denervation of the suprarenal glands,[2] suprarenalectomy,[3] denervation of the kidney, and spinal-root resection,[4] have all been practiced with alleged symptomatic improvement.

The mechanism of the hypertensive state has always been one for speculation, and it is only recently that the various known physiologic facts connected with this condition have been ably assembled.[5] According to Weiss, it should be remembered that: (1) Vasomotor tonus in hypertension is normal and is superimposed on an intrinsic arteriolar spasm. (2) Arteriolar spasm is not due to an increased secretion of adrenalin nor is it neurogenic in origin. (3) The nature of the change in the arteries and arterioles is unknown. (4) The increased diastolic and systolic pressures are secondary manifestations, and may be looked upon only as a compensatory mechanism to preserve an adequate capillary circulation in the tissues.

It has been shown by Prinzmetal and Wilson[6] that the increased vascular resistance is not confined to the splanchnic area, but is generalized throughout the systemic circulation. Two other facts which also militate against a sympathetic origin of hypertension are: (1) Paralysis of the sympathetic ganglia by novocain infiltration produces no greater increase in blood flow in hypertensive than in normal individuals, as evidenced by sympathetic vasodilatation in an extremity, a test commonly used; and (2) it is well known that total exclusion of sympathetic control of the blood vessels in animals produces no lasting fall in blood pressure. These facts would seem to indicate no excessive activity of the sympathetic nervous system, which is the usual criterion for sympathectomy.

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

1 Danielopolu, D., quoted by Pereira, A.: Nervi Splanchnici, Tipografia Porto Medico, Portugal, 1929.

2 Crile, G. W.: Indications and Contra-Indications for Denervation of Adrenal Glands, Ann. Surg., 100:667-669, 1934.

3 DeCourcy, Carroll, and DeCourcy, J. L.: Essential Hypertension with Treatment by Bilateral Subtotal Adrenalectomy, Am. J. Surg., 25:324-326, 1934.

4 Adson, A. W., and Brown, G. E.: Malignant Hypertension: Report of Case Treated by Bilateral Section of Anterior Spinal Nerve Roots from the Sixth Thoracic to the Second Lumbar, Inclusive, J. A. M. A., 102:1115-1118, 1934.

5 Weiss, Soma: Recent Advances in the Treatment of Hypertension, M. Clin. North America, 19:1343, 1936.

6 Prinzmetal, Byron, and Wilson, C.: The Nature of the Peripheral Resistance in Arterial Hypertension, with Special Reference to the Vasomotor System, J. Clin. Investigation, 15:63, 1936.

On the other hand, it is recognized that individuals suffering with hypertension show abnormal pressor responses to cold and emotion, and the work of Peet,[7] Heuer,[8] and Adson[9] has shown that sympathectomy may cause some reduction in blood pressure in certain favorable cases of malignant hypertension.

It is thus readily seen that the basis for surgical intervention is not particularly simple or easy to explain. Experience in the clinics, where series of patients have been carefully studied, does not indicate that a remission, much less a cure, may be encountered in any but a very small number of cases. It is more than likely that the beneficial effects reported are purely subjective accounts of the patients' reactions, since clinical tests have shown but mild and inconstant reduction in blood pressure, only slight increase in kidney function, and little or no ability to return to a useful occupation. As James White[10] has so well described the situation, "the whole matter of surgical intervention in severe hypertension is still so much in its infancy that it is impossible to form any final judgment about the surgical procedures described to date." Although investigation has to progress through justified and intelligent trial and error, it would seem reasonable at this time to expect further experimental work in the field of neurophysiology before any definite contribution to the treatment of essential hypertension is made.

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Leo J. Adelstein,
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ACQUIRED LESIONS OF THE TRICUSPID VALVE

The frequent presence of relative tricuspid insufficiency in advanced congestive cardiac failure is in striking contrast to the rare occurrence of organic disease of the tricuspid valve.

Relative tricuspid insufficiency is nearly always manifested by an increased pressure and systolic pulsations in the peripheral veins, the magnitude of such pulsations being considered an indication of the degree of valvular insufficiency. In many cases similar pulsations are demonstrable in the liver, which is enlarged under such circumstances. Systolic hepatic pulsations may be demonstrated either by direct palpation or with the aid of hepatic pulse tracings. One may or may not hear a systolic murmur localized over the lower sternum or xiphoid. If present, it is often indistinguishable from a similar murmur audible at the apex due to mitral insufficiency.

Relative incompetency of the tricuspid valve occurs so commonly with right ventricular dilatation in marked degrees of congestive failure that it receives little comment at the autopsy table. Nevertheless its presence, from the clinical point of view, is important as indicative of serious myocardial weakness and an overburdened right ventricle; in which instances considerable temporary relief may be given the patient by venesection.

Although relative tricuspid insufficiency may occur in myocardial failure due to many causes, organic tricuspid disease is most commonly the result of rheumatic endocarditis. In acquired tricuspid valvular lesions, insufficiency and stenosis are always coexistent to some extent, although the former is most frequently the predominant lesion. Organic tricuspid regurgitation is difficult to distinguish from a relative insufficiency, except that the latter and its peripheral manifestations may disappear with a return of improved myocardial function.

Acquired tricuspid stenosis rarely occurs unassociated with other valvular lesions. Its almost invariable association with mitral stenosis complicates its detection, so that it is rarely diagnosed antemortem. In fact, of the 252 cases of tricuspid stenosis reported in the world literature up to the present time, only thirty-two have been correctly diagnosed prior to autopsy. This should not discourage attempts to demonstrate its presence, if suspected, since, if present to a sufficient degree, it may produce signs and symptoms that are diagnostic.

Patients with tricuspid stenosis are practically always dyspneic on exertion. There is cyanosis of varying degree, often marked. The cervical and brachial veins are distended with presystolic pulsations or large "a" waves, demonstrable in the jugular pulse tracings. In some instances, combined inspection of the apex beat and jugular pulse may show the exaggerated wave to be synchronous with contraction of the auricles, even without the aid of instruments. The liver is usually markedly enlarged and tender, with auricular (presystolic) and ventricular (systolic) pulsations detectable either by palpation or with the aid of hepatic pulse tracings. Double hepatic pulsations may be explained on the basis of an hypertrophied right auricle contracting against an obstruction to the ejection of blood into the right ventricle, followed by a retrograde statis wave as a result of ventricular contraction. The most valuable and most significant clinical sign of tricuspid stenosis is the presence of auricular and ventricular pulsations in the liver. Upon the cessation of auricular activity during such arrhythmias as auricular arrest (sinus pauses), auricular fibrillation, nodal rhythm, or nodal tachycardia, the auricular pulse wave in the liver disappears, but the ventricular wave (systolic) persists.

Because the murmurs due to the frequently associated mitral stenosis are of greater amplitude, it may be impossible to detect auscultatory signs attributable to tricuspid stenosis. Nevertheless, in some instances it has been possible to demonstrate a diastolic or presystolic murmur over the xiphoid

7 Peet, M. M.: Splanchnic Section for Hypertension: A Preliminary Report, Univ. Hosp. Bull., Ann. Arbor, Mich., 1:17, 1935.

8 Heuer, G. J.: Anterior Spinal Nerve Root Section: A Surgical Treatment of Essential Hypertension, Ann. Surg., 102:1073, 1935.

9 Adson, A. W., Craig, W. McK., and Brown, G. E.: Surgery in Its Relation to Hypertension, Surg., Gynec., and Obst., 62:314, 1936.

10 White, J. C.: The Autonomic Nervous System, 263. The Macmillan Company, New York, 1935.

end of the sternum differing in quality and sometimes, although not necessarily, in timing, from a similar murmur at the apical region due to associated mitral stenosis. Confirmatory evidence of such auscultatory findings may be secured with the aid of simultaneous electrocardiograms and electrophonocardiograms.

Finally, fluoroscopic studies may show enlargement of the heart to the right, with dilatation or hypertrophy of the right auricle and pulsations in the superior vena cava. Such findings would certainly be considered corroborative.

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DIPHYLLOBOTHRIUM LARVAE IN TROUT OF CALIFORNIA WATERS*

Occurrence of different Diphyllobotriidæ has been recorded from various Eastern States of the Union. This communication deals with observations of Plerocercoids of this group in the boundaries of California. The first case concerns a privately owned lake in the Tahoe region, the second a lake in Lassen National Park. In both cases Eastern brook trout have been found afflicted. It is quite likely infections of trout by similar Plerocercoids may occur in other waters of California.

The infections were severe and often fatal to fish. Fingerlings, as well as trouts, weighing over a pound, have been killed off. The afflicted fish were less shy, swimming on or near the surface of the water before they died. There was generally no emaciation. Opened and placed in a dish of clear water, a varying and often great number of Plerocercoids could be seen emerging from the body cavity. Once liberated, the Diphyllobothrium larvae were swimming for some time with the alertness of leeches. The semitransparent body was elongated, ribbon-like, and slightly rounded on both ends. Placed in alcohol they assumed a saturated white color and a conical shape. Their size has been reduced by this procedure to about a third of the body length observed during life. Most of the larvae, however, remained embedded under or in between serous membranes of the intestines. Part of the Plerocercoids has been seen resting coiled in hairpin forms, others creeping extended and surrounded by large extravasates of blood. Some larvae appeared very minute, apparently having just passed the stage of the Procercoid. Highest numbers of parasites occurred regularly in the wall of the stomach, while decreasing numbers were found in the lower intestines, liver, kidney, and peritoneum. No larvae have been encountered under the skin or in deeper parts of the muscles of the body. This localization, as well as the more delicate shape of the body, makes a differentiation of these Plerocercoids from those of Diphyllobothrium latum possible. It is generally admitted that even adult stages of this group are sometimes difficult to classify. This is, of course, to a higher degree true in regard to larval stages. No proliferation of the Plerocercoids has been seen.

Fuhrmann[1] seems to believe that Diphyllobothrium larvae multiply by agamic proliferation, a fact which the writer has not been able to confirm in observations on his unusual large material of Diphyllobothrium latum collected in the Balticum. The writer, on the contrary, could demonstrate[2] that the increasing numbers of Plerocercoids found in larger predatory fish result from preying on smaller fish and on spawn, the latter being often infested with Plerocercoids. In other words, the more severe infections regularly observed in larger fish result from development of Procercoids after intake of primary hosts (Copepods) and, secondly, from ingestion of Plerocercoids (by preying on smaller fish and on spawn). Trout is a predatory fish, and it is quite likely the infections described above may have resulted from similar sources. This would especially explain the high incidence of Plerocercoids encountered in the wall of the stomach of these fishes. A big trout needs something more substantial as food, as there is a small copepod or a fly larva, especially if even this food is scarce by artificially filling up lakes with trout without due regard to food supply.

The species of Diphyllobothrium involved could not be established, because sickness necessitated a return to San Francisco. The studies will be continued during this year. The observations are certainly a problem for the State Fish and Game Commission, which is eager to provide a large and healthy trout population of lakes and streams. It may also be of some concern to health authorities because several species of Diphyllobothrium found in the United States of America thrive in animals as well as in man.

I do not know if it is not out of place to recommend to sportsmen working in medical fields not to throw intestines of fish in water or on shore, thus providing opportunities for spread of parasitic diseases, but to burn them. If anglers could be induced by these lines to make the test mentioned above for presence of Plerocercoids (to place the opened fish in a pan of water), this would not only enlarge our knowledge of regional distribution of these Diphyllobotriidæ in California, but it would possibly be to their personal benefit.

The Medical Center.

M. Hobmaier,
San Francisco.

* From the George Williams Hooper Foundation, University of California, San Francisco.

1 Birkeland, I. W.: Bothriocephalus Anemia, Medicine, 11:1-13, 1932.

2 Hobmaier, M.: Wie kommt die Infektion der Raubfische mit dem Plerocercoid von Dibothriocephalus latus zustande? Centralbl. f. Bakteriol., 2 Abt., Orig., 72:268-273, 1927.

The required methods of work are no secret; for they have been employed by thinking individuals ever since the time of Socrates. Here one cannot build without laying foundations. One cannot, for example, be a radio expert without the principles of electricity. One cannot be a business expert without economics. One cannot be an engineer without getting a knowledge of mathematics. Thus it runs throughout the cycle of subjects. Successful work is a kind of development; so before going far one must master its preliminary and prerequisite stages. There is no other valid way. One cannot build a tower without first laying a solid foundation.

ORIGINAL ARTICLES

ANESTHESIA IN EUROPE*

By William LeRoy Garth, M.D.
San Diego

GENERALLY speaking, anesthesia in Europe lags considerably behind anesthesia in this country. But just as life over there is most interesting where most primitive, so anesthetic and surgical practices are to the greatest degree interesting perhaps, where they vary most from our own.

The first stop on my anesthesia tour of Europe was at Florence, Italy. There I had no introductions to surgeons or anesthetists, so inquired at my pension for the best surgeon in Florence. I was directed to a Doctor Storii, and went at once to see him. His offices were across from the Duomo, or Cathedral, in the heart of Florence, and occupied the entire ground floor of an old residence. This building had been palatial in aspect at one time, but now appeared somewhat dingy with age and long use. After waiting awhile, I was admitted to the consulting room, an enormous place, which fairly swallowed Doctor Storii and his nurse in its vastness. To my great disappointment, I found that Doctor Storii spoke no English; but fortunately his wife, a charming person who spoke English fluently, happened to be in the building and came to my rescue. It was soon arranged that I should watch the doctor work on the morrow.

The following morning I got up bright and early, but by the time I had managed to find some breakfast and get to the hospital, it was 8:30 and Doctor Storii had started operating at 8 o'clock. To my surprise I found that he was already operating on the third patient, two appendectomies having been completed. Presently, the fourth patient was sent for, and two orderlies came marching in with him in their arms, dumping him rather unceremoniously on the table. The anesthetist pounced on him at once, clamping the mask over his face and starting to pour ether, at the same time directing that the patient count, following his own count. After about five minutes the patient stopped counting, and the incision was made. Occasionally a patient moved or grunted when the incision was made, but, surprisingly enough, most of them seemed well enough anesthetized for the work at hand, which consisted of a series of appendectomies using the McBirney incision. Thinking it over afterward, I wondered if they were using a little ethyl chlorid or chloroform in addition to ether, but probably not, as I believe that I should have detected it by the odor. All over Europe, I noted that ether was dispensed in refillable bottles, instead of in the manufacturers' cans, as in this country.

Only 60 to 150 cubic centimeters of ether was used for these patients, partly because the operations were so short, averaging only twelve minutes, and partly because of the considerable degree of rebreathing practiced. The mask was covered with rubber, except for a small area about 2 or 3 centimeters in diameter, where the fresh ether was added. This rubber covering ballooned out more or less with each exhalation, thus acting as a sort of a rebreathing bag.

Another feature of Italian operating-room practice that interested me immensely was the cotton gloves worn by the entire surgical team. Doctor Storii, himself, had regular surgical gloves on under the cotton, but the assistant and the surgical nurse wore heavy elbow-length rubber gloves, such as are worn for dishwashing in this country. When I asked the reason for wearing the cotton gloves, one of the nurses, who spoke English, told me that it was because rubber gloves alone were considered too slippery. However, my guess is that they used cotton gloves before they had any rubber ones, and have never been weaned away from the cotton. In fact, one of the nurses, whose duty seemed to be the handling of reserve instruments, wore no rubber gloves at all, only cotton.

I found that in Italy most of the anesthetics at the large public hospitals are given by nurses and only a few by internes. In private practice they are all administered by physicians, usually by one of the surgeon's assistants, who alternately assists and gives anesthetics.

VIENNA

Finsterer's Clinic was my first objective in Vienna, since I was anxious to see a demonstration of splanchnic anesthesia. Finsterer uses the anterior approach, starting with a field block of the abdominal wall, then making a midline incision. His next step is gently to insert several long slender retractors, and a minimum amount of packing, so that a narrow channel is provided leading down to the region of the first lumbar vertebra. He then inserts a trocar, 25 centimeters long, which is tipped with a retractable needle, 2.5 centimeters in length, and makes the injection. About 20 cubic centimeters of 0.5 per cent procain is injected to the left of the body of the vertebra, and 70 cubic centimeters on the right. Almost immediately the patient relaxes in comfort and Doctor Finsterer proceeds with the operation. The patient's general condition remains surprisingly good throughout the long operation, and he shows signs of discomfort again only while the incision is being closed.

With modifications, then, such as the use of pentothal during the induction of the splanchnic block, it seems we might, perhaps, do well to follow Doctor Finsterer in our handling of this type of case. Using splanchnic anesthesia, Doctor Finsterer does extensive gastric resections with a mortality of only 4 per cent. Of course, this is not by any means due entirely to an improved anesthetic method. Doctor Finsterer's slow and careful work is that of an artist. He uses innumerable fine sutures, seemingly not pulled up at all snugly. Surprisingly enough, the aseptic technique at Doctor Finsterer's Clinic did not seem particularly good. The crowd of spectators were not required to wear caps, let alone masks, and the clean-up of the room between cases seemed cursory, to say the least. Here again, as in Italy, they wore cotton gloves over the rubber, perhaps with the idea of protecting and

*Chairman's Address, Anesthesiology Section of the California Medical Association, at the sixty-seventh annual session, Pasadena, May 9-12, 1938.

preserving the rubber gloves. The poverty of the country was reflected in the equipment, everything being old and dingy looking, probably most of it having been in use for the past twenty years or so, since the World War.

VIENNA—RUBOLS SPITAL

Eunarcon, an intravenous barbituric acid preparation, was being used at Werner's Clinic for most of the work. This drug seems to be somewhat slower in acting than are evipal and pentothal, so that one dose often sufficed for an operation lasting 20 to 30 minutes. This, of course, is a disadvantage from the standpoint of safety, since it makes for poor control of the patient, it being much easier to give a serious over-dose of the drug. A few case reports will illustrate this point.

The first patient, a middle-aged female, scheduled for a total hysterectomy, was given 4 cubic centimeters of eunarcon in one dose. She seemed well anesthetized for a few minutes; but Doctor Werner soon began to complain of the lack of relaxation, and supplementary ether had to be given. During the delay, Doctor Werner lost his disposition in German, and I got the impression that the anesthetist was getting the usual ribbing for not having provided the proper degree of anesthesia, with no delays. The patient became quite cyanotic, as anesthesia advanced, and seemed to need an airway, but none was used.

The second patient, a woman weighing only about 110 pounds, was given enough eunarcon in one dose to cause her to stop breathing very promptly. After a minute or so, chest pressure was applied a few times, and she resumed breathing spontaneously. The operation, a vaginal hysterectomy, was started immediately. The needle was left in the vein, and at the end of fifteen minutes another 2 cubic centimeters of eunarcon solution was injected, and the needle withdrawn. This seemed to be a precautionary measure, since the patient had as yet shown no signs of waking up. At the end of twenty-five minutes Doctor Werner completed the operation. A part of his technique was to split the uterus longitudinally in the course of removing it, and this in some way seemed to facilitate matters very greatly.

In Austria, the surgeon's assistants alternate as anesthetists. In private practice, I was informed, nitrous oxid is used frequently for minor operations, but the use of ethyl chlorid, followed by ether, is the standard method. At Finsterer's Clinic, for example, ether is used for a large portion of the work, the splanchnic anesthetic being reserved for the long, hard, gastro-intestinal procedures.

ZURICH, SWITZERLAND

At Zurich I had bad luck, in a way, since there was very little surgery to be done at the "Canton Spital" the day I arrived. Doctor Petri, the resident in surgery, spoke English fluently, however, which assured me of an interesting morning. He first showed me several gas machines of which he was quite proud. One of these was actually equipped with a built-in absorber, the only one I saw in Europe, outside of England. Then he rather shamefacedly admitted that most of the anesthetics in Switzerland are given by nurses. In fact, the lack of skilled medical anesthetists in Switzerland is such that they had recently had to send all the way to England for an anesthetist to give chloroform to one of the Maharajahs of India, who had refused to be operated on except with a chloroform anesthetic. Nitrous oxid is used frequently at the "Canton Spital," but no ethylene or cyclopropane is available. As a result, the gas must very often be supplemented by ether.

In their surgery, they use a sort of mitten made of cotton, over the rubber gloves. This left the thumb and fingers free, which did away with the argument in Italy that the cotton gloves were worn because the rubber is too slippery. The only function I could see for this type of glove was that it very neatly bridged the gap between the gown and the glove.

MUNICH, GERMANY

At the University Hospital in Munich all of the anesthetics were given by physicians; unfortunately, however, not by persons specializing in anesthesia. In fact, the only place in Europe where I found medical specialists in anesthesia was in England.

The first patient was given a high caudal block for an Alexander suspension. Seventy cubic centimeters of ¾ per cent tutocain was used, and the anesthesia obtained seemed entirely satisfactory. However, Doctor Mallow, the resident, admitted that they had about 10 per cent of failures to get such a high anesthetic effect with the method. One private patient was given nitrous oxid for a dilatation and curettage, but it was supplemented with ether, and the benefits of the gas were thus largely lost. The rest of the patients operated on that morning were given an ethyl chlorid induction, followed by a semiclosed ether anesthetic. Much more than the usual amount of rebreathing was provided for by a special mask, equipped with a rebreathing bag, and a tube for administering oxygen. The oxygen was measured by bubbling it through a flow bottle, filled with water. Through the good oxygenation thus provided, they seemed to get remarkable results with this simple apparatus.

An interesting thing about the surgical technique at Werner's Clinic was that the instruments were kept in pans of antiseptic solution instead of on instrument tables. After having been used, they were put back into the pans of solution, just as in this country they would be returned to the tray. It is interesting to speculate as to whether this custom might actually be a hold-over from the days of Listerian surgery.

HEIDELBERG

The next stop on my anesthesia tour of Europe was at Heidelberg. I was disappointed to find that Doctor Kirschner was away on his vacation, and that they had absolutely nothing scheduled, since they were only taking care of emergencies in his absence. I found that spinal percain was being used very extensively at Heidelberg for operations on the lower extremeties, and that narkogen, an intravenous barbituric acid prepara-

tion, was being applied increasingly for short operations of all kinds.

For laparotomies, avertin basal anesthesia, supplemented by ether, was the method of choice, but ethyl chlorid induction, followed by ether, was still being made use of for a considerable proportion of the work.

WIESBADEN—THE STADT KRANKENHAUS

Avertin is the anesthetic of choice at Kleinschmidt's Clinic. I saw only one operation there, an open reduction of a shoulder, for which 100 milligrams of avertin had been given. Anesthesia was incomplete, so it was supplemented by ether. When the patient's tongue dropped back, the anesthetist seized it with a grasping forceps, not even trying an airway first, which was understandable, as the airway provided was too short and straight to be of much use. When an instrument dropped on the floor, it was boiled only a minute or so, then cooled in an antiseptic solution and put back on the tray.

Doctor Kleinschmidt seemed badly spoiled by both nurses and assistants, who kowtowed to him in grand style. He bullied all of them in a pleasant manner, and, strangely enough, was very careless in the use of suture material, making no attempt to economize in its use. He seemed a real personage, and I was only sorry that my poor German and my lack of time kept me from getting to know him better.

PARIS—HÔTEL-DIEU

Ether, given by a semiclosed method, is the principal anesthetic used at Hôtel-Dieu. A mask, equipped with a sort of rebreathing bag, is used, and extensive rebreathing is practiced. The patients seemed quite blue; but since the operating room was fitted with blue glass windows, it was impossible to tell how much was due to cyanosis and how much was the reflection of the blue light. It did not occur to me at the time what a dangerous combination this was—the blue glass and the questionable anesthetic method. But, in thinking it over afterward, I came to the conclusion that most of the patients operated on there would probably do better with a great deal more oxygen than they were allowed to have.

The surgeons at Hôtel-Dieu wore the great, thick, elbow-length gloves seen at so many clinics in Europe; but in spite of this they seemed to get their work done promptly and efficiently.

Later in the morning I rushed over to the great Salpêtrière Hospital, but arrived too late to see any surgery. Upon inquiring, I was informed that ether is still the principal anesthetic agent used at the Salpêtrière.

LONDON

My first visit in London was to the old Westminster Hospital, across from Westminster Abbey. The hospital has the patina of age, appearing to belong to about the same period as the Abbey, further enlarged by the sixteenth century. Inside, however, it is fairly well modernized, and I found Doctor Nosworthy, to whom I had an introduction from Wm. V. Chalmers-Francis of Los Angeles, using a modern McKesson gas machine and the carbon dioxid absorption technique.

His first patient was a man aged 61, scheduled for a cholecystectomy. I was late, and the patient had been intubated when I arrived. Doctor Nosworthy was giving him nitrous oxid-oxygen and ether, and carrying him lightly—to conserve his strength. The operation was progressing quite slowly because of adhesions, but the patient's condition was entirely satisfactory. About an hour later the blood pressure began to fall, and Doctor Nosworthy administered 500 cubic centimeters of glucose intravenously. When the operation was finished, at the end of the second hour, the patient left the table, apparently in very good condition.

The next patient was a husky young workman of twenty, to be operated on for an undescended testicle. Doctor Nosworthy gave him nitrous oxid-oxygen and ether, having considerable difficulty with the induction, as we all do at times when handling this type of patient. I could not help thinking how much Doctor Nosworthy might enjoy handling the same patient with ethylene or cyclopropane, and not being obliged to use ether.

The third patient was a woman of forty-five, in for the reduction of a Colles' fracture. Doctor Nosworthy gave her 5 cubic centimeters of 10 per cent pentothal, which seemed the right dose of the right agent, so perfect was the result. Again I wondered if it was the relative weakness of nitrous oxid as an anesthetic agent that has helped cause the rush toward intravenous anesthesia in England and the Scandinavian countries.

LONDON—ST. THOMAS HOSPITAL

A few days later I watched Doctor Nosworthy work at St. Thomas Hospital. When I arrived, they were well along on a pelvic laparotomy under gas-ether anesthesia. Doctor Nosworthy had shut off his absorber, and increased the flow of gas and oxygen to about ninety gallons per hour, because of the patient's greatly increased respiratory rate, which had run up to sixty per minute, in spite of the use of fresh soda lime. We soon came to the conclusion that this might have been due to overetherization, since about four ounces had been used, or it might have been due to the fact that the obese patient had been too long in deep Trendelenburg position. Doctor Nosworthy had been using the carbon dioxid absorption technique for a few months only, and said he still had a tendency to forsake it, and go back to his old ways whenever any difficulty arose.

Several other patients at St. Thomas' that afternoon were given pentothal with strikingly satisfactory results, and Doctor Nosworthy admitted that he was using it increasingly in place of gas for minor operations. After the surgery was finished, tea was served in the physician's dressing room, and a pleasant social hour was enjoyed.

My next introduction was to Dr. Ronald Jarman, one of the foremost anesthetists in London. He works chiefly for "Mr." Abel, one of London's leading surgeons. Their first patient was to have a sympathectomy for a cervical rib. Doctor Jarman uses pentothal induction for most of his

patients, so this patient was given 5 cubic centimeters of 10 per cent pentothal rather rapidly, and she promptly stopped breathing. Doctor Jarmin then endeavored to intubate her, but was unsuccessful, because of laryngeal spasm. He then tried to insufflate the lungs with oxygen by means of bag pressure, still with no result. Doctor Abel, the surgeon, finally interfered to the extent of applying pressure to the chest a few times, after which the patient began to breathe again. Nitrous oxid was then started and the operation finished without further difficulty.

Doctor Abel's second patient was a large, florid male, scheduled for an appendectomy. Doctor Jarman gave him 3 cubic centimeters of pentothal in his room, and another 3 cubic centimeters when he reached the surgery. He followed this with nitrous oxid-oxygen, plus a small quantity of ether, with partial rebreathing. Because the pentothal had greatly lowered the metabolic rate, little carbon dioxid was being produced, and I was amazed to see how much rebreathing it was possible to use, in spite of the fact that the machine was not equipped with an absorber.

Another day I went with Doctor Jarman to a nursing home, where Doctor Abel was to operate. This nursing home was a remodeled residence, as I understand most of them are, and was hardly the place for important major surgery. However, it is an old British custom to take care of the private patients under these adverse conditions, and now that world conditions are so chaotic there seems little hope of a change in the situation in the near future.

On this day, the patient was a woman of 63, scheduled for a resection of a portion of the colon for a carcinoma. Her hemoglobin was only 50 per cent, in spite of the fact that she had had a transfusion on the previous day, so she was to receive intravenous fluid throughout the operation, and was to have another transfusion that afternoon. Doctor Jarman gave her 3 cubic centimeters of 10 per cent pentothal in her room, followed with a percain spinal block in the surgery. The administration of the percain was quite dramatic, since the patient had been thoroughly relaxed by the pentothal, and had to be supported in a sitting posture by two nurses while the spinal tap was made. As soon as she was in position on the table nitrous oxid-oxygen was started, and the operation begun. An hour later, when I was forced to leave, Doctor Abel was well along with the operation, and was removing a large mass, along with a portion of the colon, in the region of the splenic flexure. I heard from Doctor Jarman recently, and he said that the patient had made an uneventful recovery, having had the colostomy closed some time ago, and being again capable of normal activities.

IN CONCLUSION

In conclusion, I should say that anesthesia on the Continent has lagged considerably behind anesthesia in our own country. Perhaps because gas and gas machines were so expensive, their use did not spread on the Continent during the post-war years, as in England and the United States. Even when the carbon dioxid absorption method was developed, and the cost of gas became a negligible item, the widespread dependence on ether continued. Recently, however, a large number of Continental clinics have been using intravenous anesthesia extensively, not only for minor and short operations, but for all kinds of surgery. I am convinced that this is an unhealthy development, comparable to the wave of enthusiasm for spinal anesthesia that swept this country only a short ten years ago. However, it may be that they are really setting the pace for us, rather than going off at a tangent as it now appears.

In England the picture is very different. Anesthesia there was never turned over to technicians, as in our country, so their personnel set-up is much better than our own—physicians giving all of the anesthetics, and professional anesthesia having been a recognized specialty for generations. As a result, they have been the leaders in the art of anesthesia. However, their ingrained conservatism is such that they have fallen behind in the present forward surge of anesthesia progress. I understand that chloroform is still used fairly frequently, even to the extent of being the anesthetic of choice at many places in the outlying districts. They failed to accept ethylene when it was brought out by Luckhardt in 1923, and are now just as staunchly refusing to try cyclopropane. However, the carbon dioxid absorption method has finally found favor over there, and is being rapidly taken up by the more progressive men. With this necessary preliminary step taken I predict that in England they will soon join the procession, and give cyclopropane a trial.

1252 Third Avenue.

CONSERVATIVE RENAL SURGERY WITH PARTICULAR REFERENCE TO KIDNEY TRAUMA*

By Lloyd E. Kindall, M.D.
Oakland

With the trend toward conservative renal surgery, I wish to present to you a brief résumé of ten recent cases of kidney trauma, emphasizing the following points in their management:

1. Every traumatized kidney requires absolute bed rest.
2. The amount of pain complained of by the patient does not determine the severity of the kidney injury.
3. The severity of the body injury does not determine the severity of the kidney trauma.
4. Intravenous urography is invaluable in the diagnosis of kidney trauma, and it should be done as soon as possible after injury.
5. Conservative surgery should be practiced in every case. A safe rule to follow is to explore every kidney where there is a gross hematuria

* Chairman's address, Urology Section of the California Medical Association, at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

From the Urological Service of Alameda County Hospital, Oakland.

lasting over twenty-four hours, and more especially in that case in which pyelograms show either intra- or extracapsular extravasation of the sodium or iodine salt.

REPORT OF CASES

Case 1.—O. G., male, age 19. Had been drinking. While driving a car, he ran into a lamp-post and was thrown out of the car. This caused a severe body injury. He was temporarily unconscious, but soon recovered, and was taken to the Alameda County Emergency at 8:25 p. m. and put to bed. The next morning he passed bloody urine and complained of severe pain in the right kidney region.

Intravenous Urography.—Showed incomplete filling of the calices, but the pelvis appeared normal; there was no break in the renal parenchyma.

Course.—There was no gross hematuria, but the urine contained microscopic red blood cells. The pain in the flank had subsided.

Three days later retrograde pyelograms were normal, and the patient's urine was normal.

The patient was kept in bed for fourteen days and then discharged.

COMMENT

This was a severe body injury, which caused gross haematuria and severe pain in the kidney region. These two symptoms both subsided in twenty-four hours. The intravenous pyelograms were negative. The patient recovered with bed-rest.

* * *

Case 2.—W. R., a male, age 21. Was in a motorcycle accident, but did not remember the details. He was brought to the Emergency Hospital, in shock, at 2:15 a. m. His blood pressure was 70/54; he complained of pain in the back, and was in shock; his left flank was tender; the first urination was bloody. At 9:00 a. m., his blood pressure was 112/64; there was contusion, spasticity, and bulging of the left lumbar region.

Intravenous Urography.—Showed the transverse processes of the first, second, third and fourth lumbar vertebrae on the left, pulled off and displaced laterally. The right kidney was normal. On the left there was some evidence of function, but no definite outline of pelvis or calices. The diagnosis was ruptured kidney. The patient was given glucose, and was taken to the surgery.

Surgery.—Revealed marked perirenal hemorrhage; the kidney was badly contused and showed numerous areas of infarction, and it was torn at the hilum, probably destroying most of the blood supply. Nephrectomy was done, followed by one blood transfusion. The patient recovered.

COMMENT

This was a severe body injury, which caused severe trauma to the kidney, as demonstrated by the gross hematuria and the intravenous urograms. This patient was operated upon in less than twelve hours and, at surgery, the kidney was found to be so damaged that nephrectomy was necessary. Delay and observation, in this case, would have caused much blood loss. I feel that this case was properly managed, and that the surgery was conservative.

* * *

Case 3.—E. T., a male, age 12. Was riding a bicycle along a cliff, when he suddenly rode over the cliff and fell twenty feet. This resulted in a severe injury. He was brought to the Emergency Hospital in mild shock. His clavicle and wrist were fractured. He was suffering from abrasions. He complained of pain in the left costovertebral angle and left abdomen. His urine showed fifteen to thirty red blood cells to the H. D. F.

Next day the patient had pain in the left upper quadrant and his abdomen was distended. A Payne tube was inserted into his stomach, and much gas was removed, but his abdomen continued paining.

Intravenous Urography.—On the second day showed an apparently normal right kidney. There was some filling of the left kidney, but the pelvis and calices were not clearly outlined. The diagnosis was probable traumatized kidney. The urine continued to have microscopic red blood cells for a few days only. The patient was treated conservatively because the bleeding was only microscopic in character, and the pain gradually subsided. He was discharged eighteen days after entry.

COMMENT

This patient received a severe injury which caused pain in the kidney region, but the trauma to the kidney was slight, as evidenced by microscopic red-blood cells only in the urine. The intravenous urograms were not conclusive, because they were made on the second day after injury, when the abdomen was distended with gas. If intravenous urograms had been taken shortly after injury they would have given us much more information. The patient recovered with bed-rest.

* * *

Case 4.—A. S., a male, age 41. Was struck by an automobile while crossing the street. Upon admission to the Emergency Hospital his hemoglobin was 76 per cent; his red blood count was 4,300,000; his urine was grossly bloody; there was a palpable mass in his left abdomen; his abdomen was distended, and his general condition was poor.

X-rays taken upon admission showed fractures of the fourth, fifth, sixth, seventh, eighth, ninth, tenth and eleventh ribs on the left, in midscapular line. The kidneys were not visible.

X-rays of the lungs, taken three days later, showed a generalized haziness of the left chest, due to edema and hemorrhage into the lung, with a pneumonic process developing in the base of the right lung.

On the fourth day the patient's hemoglobin was 60 per cent; his red blood count was 3,425,000; he had a well developed pneumonia, and his condition was poor.

On the fifth day the hematuria stopped, and the urine contained only a few microscopic red blood cells. During this time the patient was too sick to be moved to x-ray for intravenous urography.

Cystoscopy done on the thirty-ninth day, with retrograde pyelograms, showed normal kidneys, with no evidence of injury. Two days later the patient was discharged as well.

COMMENT

This case demonstrates a very severe body injury, with an injury to the kidney severe enough to cause gross hematuria lasting five days. However, retrograde pyelograms, taken thirty-nine days after injury, showed normal kidneys, with no evidence of rupture. Intravenous urograms could not be made because of the patient's poor condition. It seems to me that a patient who recovers from eight fractured ribs, a hemorrhage into one lung, and a pneumonia in the other lung, is entitled to escape with normal kidneys.

* * *

Case 5.—W. A., a male, age 20. Was in an automobile accident, and was thrown against the side of the rumble seat, injuring his right flank. He was brought into the hospital unconscious and in shock. There was rigidity of both upper quadrants and marked tenderness of the right flank. His urine was grossly bloody. After recovering consciousness, the patient had severe pain in the right kidney region.

Intravenous Urography.—The next morning showed a normal left kidney; the right kidney showed torsion and appeared opposite the third and fourth lumbar vertebrae; the right major and minor calices were not well demonstrated; this indicated perirenal hemorrhage, with displace-



Fig. 1

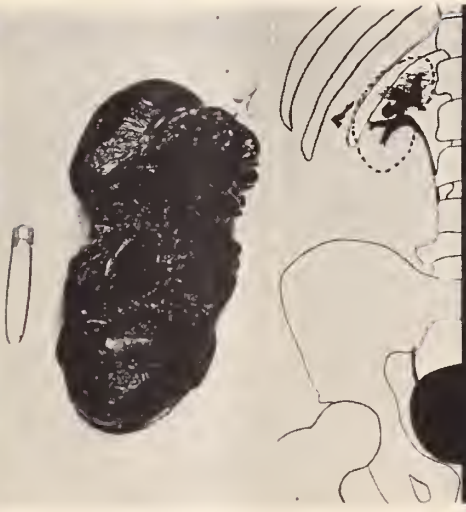


Fig. 2

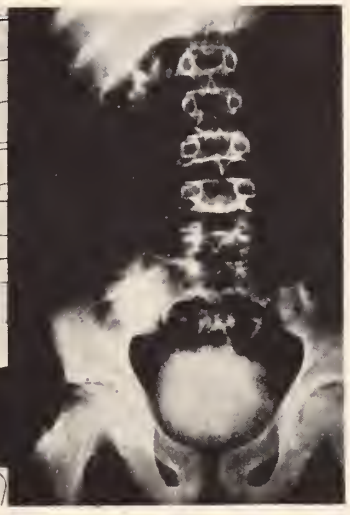


Fig. 3

Fig. 1.—Retrograde pyelogram showing extravasation of the sodium iodide in the lower pole. There was continual bleeding from the left kidney.

Fig. 2.—Demonstrates extensive ruptures of the kidney which were not demonstrated with retrograde pyelograms. Intravenous urography would probably have demonstrated more of the ruptures. (See Figure 1.)

Fig. 3.—Intravenous urogram illustrating intracapsular extravasation of the iodine salt in the upper pole, and also extracapsular extravasation.

ment of the kidney downward. On this same day, the urine showed microscopic blood cells only. The patient's general condition was good; there was some tenderness in his right flank.

Retrograde pyelograms taken four days later showed the right kidney in abnormal position, with the right ureter displaced medially. There were shadows of extravasation into the kidney parenchyma opposite the upper minor calyx.

Ten days later the right kidney could not be palpated; there was no tenderness and no symptoms; the urine was negative. The patient was discharged to his home for bedrest.

COMMENT

This case demonstrates a severe body injury which caused marked kidney pain and immediate gross hematuria; but the hematuria stopped within twenty-four hours. The intravenous urograms which were taken indicated perirenal hemorrhage, pushing the kidney downward, but showed no evidence of intracapsular rupture. This patient was treated conservatively because the hemorrhage stopped within twenty-four hours.

* * *

CASE 6.—E. U., a female, age 16. Was in an automobile accident, in which she was thrown forcibly onto the limb of a tree from a car, injuring her right side. She complained of severe pain in her right lower ribs and in the right lower quadrant; there was marked guarding over her entire abdomen; she vomited several times; her pulse was 100; her urine was smoky, and there were thirty to forty red blood cells to the H. D. F.

Two days later the patient still had pain in her abdomen and right flank; there was a slight elevation in temperature; her urine was grossly bloody at times; at other times there were only microscopic red blood cells. During this period the patient was under observation in the surgical department of the hospital.

Five days after admission the patient had no complaints; her urine was clear; her condition excellent.

Seven days after admission the patient passed bright red blood. Next day she was transferred to the G. U. Service. She had no complaints, but there was tenderness and rigidity of the right abdomen. Cystoscopy was done that night, revealing a blood clot at the right ureteral opening; there was bloody urine from the right kidney, and more pain in the right flank, with marked tenderness and rigidity at the right costovertebral angle.

Surgery disclosed two large ruptures at the lower pole, with a general maceration of the lower half of the kidney. Nephrectomy was done. The patient was given two blood transfusions.

COMMENT

This patient was treated conservatively for eight days before being transferred to urological service. With the history of intermittent hematuria and marked pain in the right kidney region for eight days, and with cystoscopy revealing blood clots at the right ureteral opening, surgery was definitely indicated. At operation, the kidney was found to be so extensively damaged that nephrectomy was necessary. This case demonstrates a severe body injury, with such severe kidney damage that, had it been turned over to the urological department upon admission, an intravenous urography would have been done, and surgery would not have been delayed so long.

* * *

CASE 7.—C. K., a female, age 27. Fell off a horse three days before admission to the hospital, injuring her left side, and had had a constant total hematuria. Upon admission to the hospital, her blood pressure was 105/75, her pulse was 56, and she looked pale. There was a marked tenderness at the left costovertebral angle. Her hemoglobin was 70 per cent; her red blood count was 4,180,000; white blood count 20,600; polynuclears 65 per cent.

Intravenous Urography was done upon admission (three days after injury), with the following conclusions: Right kidney, normal pelvis and calices; left kidney: "There is nothing in these films diagnostic of rupture of the left kidney; there is definite diminution in the excretion of this side; there is absence of filling of the calices on the left, except for a small amount in the superior calyx, which may possibly be slightly farther away from the pelvis than one would expect from comparison with the other side."

Exploratory Operation.—Revealed a rupture at the anterior aspect of the left kidney near the hilus; this was cleansed of clotted blood and filled with a piece of fat; the edges of the kidney were approximated with mattress sutures. Following surgery, the patient was given two blood transfusions.

Cystoscopy, twenty-six days later. Dye was excreted from both kidneys in five minutes, both normal density;

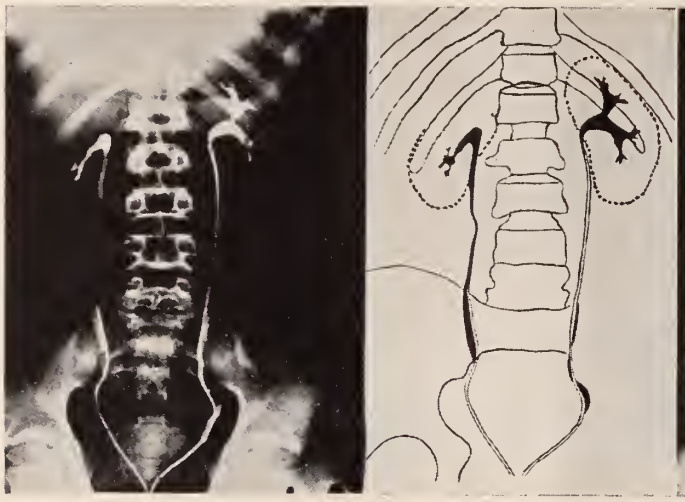


Fig. 4



Fig. 5

Fig. 4.—Retrograde pyelogram demonstrating the lower pole of kidney following surgical repair of the upper pole. The function of this lower pole is very good. This patient is now working and is free of symptoms.

Fig. 5.—Intravenous urogram, twenty-four hours after injury, demonstrating both intra- and extracapsular extravasation of iodide salt.

retrograde pyelograms showed normal kidneys in normal position, with nothing to suggest rupture of the left kidney. The patient was discharged as cured.

COMMENT

This case demonstrates a severe body injury and a severe kidney injury, with no pain. There had been constant total hematuria for three days. Commenting on the x-ray report of the intravenous urograms taken three days after injury (the report reads: "There is nothing in these films diagnostic of rupture of the left kidney; there is definite diminution in the excretion of this side; there is absence of filling of the calices on the left, etc."), I feel that, in many cases where there is a tear in the renal parenchyma extending into the kidney drainage system, causing total hematuria, the iodine salt excreted in the kidney will be carried down the drainage system with the blood too rapidly to give a satisfactory urogram. This is one case in which intravenous urograms failed. Surgical repair of the lacerated kidney saved the kidney, as evidenced by normal function and by pyelograms taken twenty-six days after surgery.

* * *

CASE 8.—P. B., a male, age 17. Was hit by an automobile while riding a motorcycle. This was a severe body injury. He was in shock when brought to Emergency, had pain in his left flank, and gross hematuria. He was given sedatives and placed under observation.

Cystoscopy was done next day, and a left ureteral catheter was left in situ for drainage. Retrograde pyelograms showed extravasation of the sodium iodide into the lower pole. (Fig. 1.)

The second day there was marked rigidity of the left flank and gross hematuria.

The third day surgery was done, with the hope that sutures could be placed in the lower pole to control bleeding. (Fig. 2.) There was a large area of rupture in the mideal portion of one side of the kidney, extending into the renal pelvis for a distance of 5 centimeters, which almost severed the lower pole. On the opposite side, there were two linear rupture lines measuring 3 centimeters and 2 centimeters in length, approximately in the mid-portion of the kidney. There were several infarcted areas in the lower pole.

Nephrectomy was done, followed by two blood transfusions.

COMMENT

This patient had a severe body injury, with severe kidney damage; the pain was constant and severe; gross hematuria was constant; the retrograde pyelograms showed extravasation of the sodium iodide solution in the parenchyma of the lower pole. However, the patient was treated conservatively; but when the gross hematuria persisted after forty-eight hours, an exploratory operation was done, with the hope that a mattress suture could be placed through the lower pole to control bleeding. The kidney was found to be damaged beyond repair and had to be removed. I feel that intravenous urograms would have given us much more information, and surgery would not have been delayed so long.

* * *

CASE 9.—S. L., a male, age 14. Fell on a curb, striking his right side, and had immediate pain in his right flank. This was a mild body injury. When brought to the Emergency Hospital he had gross hematuria and marked tenderness of the right flank extending from the costovertebral angle to the right lower quadrant. The patient did not look ill. His general condition was good.

Intravenous Urography.—Was done next day, which demonstrated both intra- and extracapsular extravasation of the iodine salt. The patient's urine was still grossly bloody. This second day the patient's urine was still bloody, there was more pain in the right flank, and his pulse rate was going up.

Surgery.—Disclosed much perirenal bleeding; the upper pole of the kidney was badly contused, and there was a split of about 4 centimeters in its long diameter, parallel to the axis of the kidney. After separating the clots in the rupture of the upper pole, an upper branch of the renal artery was found spurting at the pedicle, and it was ligated. The rupture was sutured with ribbon gut, in the expectation that the upper pole of the kidney would atrophy. The patient was given four blood transfusions at intervals thereafter.

Follow-up.—This patient ran a moderate fever for six weeks. An exploratory operation was done after twenty-eight days, revealing a nodular upper pole, but no pus. The patient was in the hospital for fifty-six days. (Fig. 4.)

COMMENT

This case demonstrates a slight body injury and a severe kidney injury. The patient should have



Fig. 6



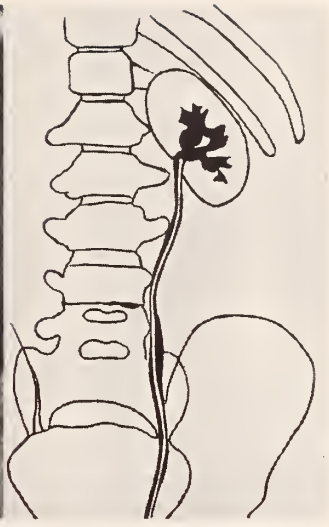


Fig. 7

Fig. 6.—Sketch made of kidney as demonstrated at surgery. (See Figure 5.) Note complete transverse rupture extending through kidney pelvis. The shaded area in the lower pole represents the area of infarction which was removed. The kidney was then sutured with ribbon catgut.

Fig. 7.—Retrograde pyelogram (See Figures 5 and 6) made seven months after surgical repair. Note the connection between the minor calices of the upper and lower poles. The function of this kidney is normal; there is no infection; there are no symptoms of pain or discomfort.

been operated upon the first day, instead of the second day after admission. There would have been less blood loss. Also, if the upper pole had been removed at the time of surgery, the exploratory second operation and the long course of fever might have been prevented. This prolonged fever was probably due to absorption of the necrotic upper pole, which had lost its blood supply. The patient still has the lower pole of the kidney, which has excellent function. He has no symptoms.

* * *

Case 10.—B. H., a female, age 9. Fell on the concrete curbing, striking her left side. This was not a severe body injury. She was taken to the Emergency Hospital with a pain in her left flank, and gross hematuria. She did not look sick.

Intravenous Urograms were made the first day following admission. (Fig. 5.) The patient still had gross hematuria. She was in good condition.

The second day following admission there was still gross hematuria.

Intravenous Urography was repeated, and surgery was done that evening. (Fig. 6.) There was much perirenal hemorrhage. After separating the fatty capsule, first the lower half and then the upper half of the kidney was brought out through the incision, the kidney being ruptured transversely across the center, dividing the pelvis and part of the pedicle. In the mesial end of the lower half of the kidney there was an infarcted area of about three-fourths of an inch in width that was grayish-white in color. This was removed with a scalpel. The upper and lower poles were then sutured together. The patient was given two blood transfusions. Thirty-seven days after surgery the sinus was healed.

Pyelograms were taken one week after the sinus was healed. Follow-up retrograde pyelograms were taken seven months after repair surgery was done. (Fig. 7.)

COMMENT

This patient demonstrates a mild body injury, with severe kidney trauma. Gross hematuria was constant, but the patient complained of very little pain. She should have been operated upon the first, instead of the second day following injury, because the urograms showed both extra- and intracapsular rupture. This case demonstrates what can be done surgically with some of these ruptured kidneys where a pole of the kidney has been severed, and intravenous urography has demonstrated the function of the injured kidney. In this instance we knew that the upper and the lower poles functioned normally before surgery. Is the seven months after follow-up pyelogram made too early to determine the future function of this kidney? At the present time, the patient is free of symptoms, the kidney function is normal, the urine is free of pus cells, and the culture of the urine is sterile.

* * *

DISCUSSION

I have recommended no type of operation nor the use of any type of suture.

I have made no attempt to classify kidney ruptures, nor would I attempt to classify or enumerate any of the various signs and symptoms. I have, however, briefly described the management of ten cases.

I have described to you cases in which all symptoms subsided and the gross hematuria stopped within twenty-four hours.

I have described cases of severe body injury, accompanied by severe pain, in which there was only mild trauma to the kidney.

I have also described to you the type of injury which is characterized clinically by a gross hematuria lasting over twenty-four hours, initial shock, with a fall in blood pressure, increased pulse rate, etc., where the usual conservative treatment is generally advised, namely: rest, sedatives, frequent examinations of the blood count and blood pressure, and x-ray examinations, until the patient becomes weak from loss of blood.

I have described to you two cases of mild body injury in which severe kidney damage was done, where the patient had very few clinical symptoms, except gross hematuria.

What, then, is the best procedure to follow in these cases where gross hematuria persists after twenty-four hours?

Many experiments have been made on the kidneys of various animals, under various conditions, which are illuminating, but which, I feel, do not have any direct bearing on human kidneys, as I have shown that the severity of the body injury does not determine the severity of the kidney injury. Sufficient data is not available to tell us what eventually happens to these traumatized kidneys which are left to repair themselves, nor what happens to those which are repaired surgically.

I am of the opinion that intravenous urography is the most important deciding factor in determining the extent of kidney damage and the consequent management of the individual case. This should be done as soon as possible, because delay allows more gas to form in the intestinal tract in the cases of severe injury where there is perirenal bleeding. The shadow of this gas on the x-ray films may interfere with the reading of the intravenous urograms. If an intravenous urography is unsuccessful at first, it should be repeated or combined with retrograde pyelograms. Either intravenous or retrograde pyelograms taken alone may be unsuccessful. Intravenous urography will generally give us an outline of the ureters and bladder; and, should the ureter or bladder be ruptured, the extravasation of the dye can, as a rule, be readily detected. Intravenous urography will also tell us if the patient has a normal kidney on the unaffected side, the assurance of which gives a comfortable feeling when operating on an injured kidney.

To repeat what I stated above, conservative surgery should be practiced in every case. A safe rule to follow is to explore every kidney that has a gross hematuria lasting over twenty-four hours, and more especially in that case in which intravenous or retrograde pyelograms show either intra- or extracapsular extravasation of the dye. I feel that this is conservative surgery. While it is true that some pathological kidneys are more apt to rupture following injury than a normal kidney, we can assume for all practical purposes that the injury has taken place on a normal kidney (as was the fact in these ten cases which I have cited), which makes the exposure of the kidney an easy matter. It is not like operating on infected kidneys, for example, which are densely bound down with adhesions. The injured kidney can generally be brought out well into the incision and explored, and repair can be done easily. In some of these cases we delayed unnecessarily too long with surgery, requiring, in some instances, two or more blood transfusions to make up for the loss of blood. The hemoglobin and red blood cell count will not give an estimation as to the amount of blood loss until some twenty-four hours after bleeding, when the blood stream will then have had time to take in fluids to make up for the blood loss.

CONCLUSIONS

1. In every case of trauma to the kidney, the patient should be kept at absolute bed rest, and intravenous urography should be done as soon as possible.

2. Do not depend upon pain as a measure of the extent of kidney damage.

3. Gross hematuria, accompanied by little or no pain, does not necessarily mean slight kidney trauma.

4. In every kidney injury where gross hematuria persists after twenty-four hours, an exploratory operation should be seriously considered. In a case where there is gross hematuria following injury, and intravenous urograms show rupture, surgery becomes imperative if that gross hematuria lasts over twenty-four hours. That is what I mean by conservative surgery in kidney trauma.

400 Twenty-ninth Street.

TUBERCULOUS TRACHEOBRONCHITIS: A REVIEW*

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AND
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DISCUSSION *by John C. Jones, M.D., Los Angeles; Sidney J. Shipman, M.D., San Francisco.*

MUCOSAL tuberculosis of the trachea and bronchi needs emphasis as an important and relatively frequent complication of pulmonary tuberculosis. Eloesser[1] has contributed greatly to our knowledge of this subject. Experience with more than one hundred cases of tuberculous tracheobronchitis has convinced us that this condition often may be serious. In the group of patients showing advanced ulcerative and stenotic lesions, there has been a mortality of approximately 50 per cent regardless of the type of treatment that was used for the pulmonary tuberculosis.

INCIDENCE

A recent study[2] was made of 272 patients with adult pulmonary tuberculosis who were admitted to a sanatorium. Active or healed tuberculous lesions were found bronchoscopically in thirty (11 per cent). In twenty-four of the thirty the presence of bronchial pathology was suspected prior to bronchoscopy because of symptoms and roentgenographic changes. Mucosal disease was found in many patients whose pulmonary tuberculosis was of relatively short duration. There was no evidence that the use of active collapse therapy favored the development of mucosal lesions.

BRONCHOSCOPY

Bronchoscopy[3] should always be used to confirm a suggestive diagnosis, and is contraindicated only by laryngeal ulceration, tuberculous pneumonia, and severe hemoptysis. Skill in passing the instrument is essential. Mucosal lesions result from contact with bacillary sputum.[4] In its early stages the dis-

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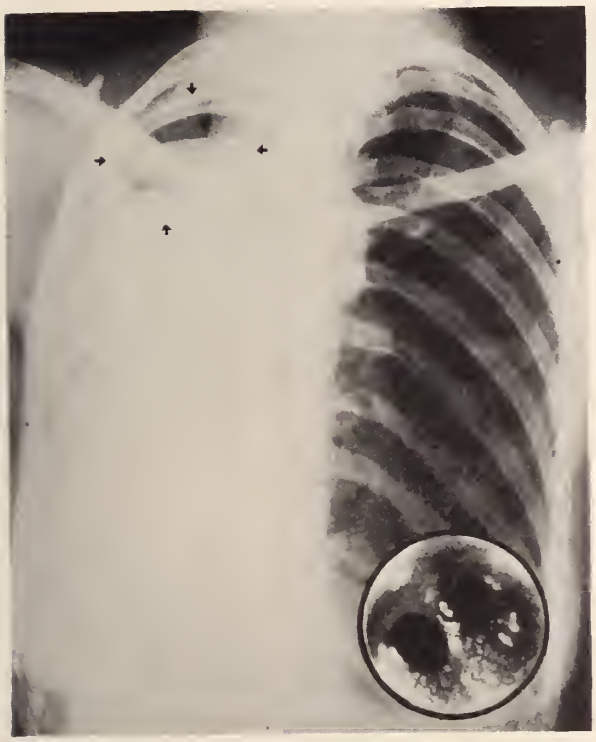


Fig. 1.—Progressive atelectasis of the right lung with tennis-ball cavity. Insert shows original extent of acute hyperplastic mucosal tuberculosis, limited to the stem bronchus. The tracheal mucosa was later involved. Roentgen therapy resulting in severe lower tracheal and bronchial stenosis. Death. Such a lesion now would be treated with electrocautery when first seen.

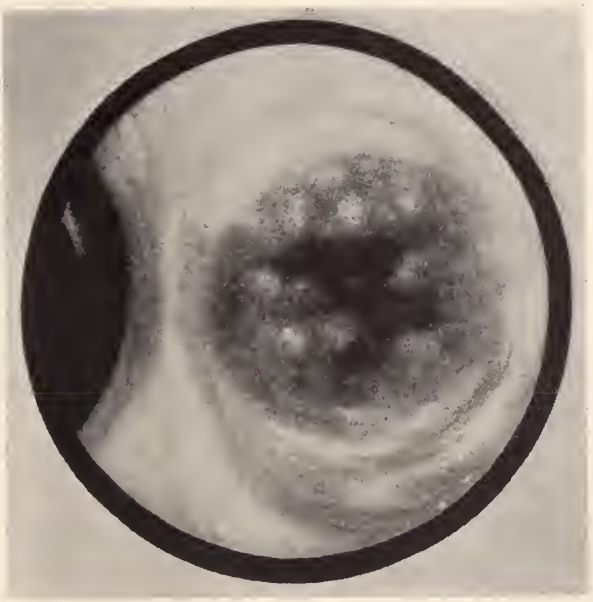


Fig. 2.—Pure fibrostenosis of the right stem bronchus at the carina. The patient wheezed, had difficulty in raising sputum, and was slightly dyspneic. Dilatation on three occasions prior to thoracoplasty gave great symptomatic relief. Operation without incident.

ease is seen at the lobar bronchial orifices. The stem bronchus may then become involved circumferentially. Finally, the tracheal mucosa is affected by direct extension. Several types of lesions may be recognized.

1. The mucosa may show ulceration which occasionally extends to the cartilaginous rings. Obstructing granulation tissue may be present. Ulcerative disease always is potentially serious, and frequently progresses after the pulmonary tuberculosis is controlled.[5] Acid-fast bacilli are constantly present in cases of bronchial ulceration. At present active collapse therapy is not recommended unless the ulcers are regressing or unless local treatment of the mucosal disease is possible. Spontaneous regression has been noted but it cannot be predicted.

2. Submucosal tuberculosis may show as a flattened, nonobstructive lesion with discrete tubercles. The mucosa is edematous, granular, and bleeds easily. Occasionally there may be difficulty in distinguishing between submucosal tuberculosis and nonspecific infection. It would appear that submucosal disease is relatively less active than is the ulcerative type, the former usually healing with adequate control of the pulmonary infection. Occasionally, submucosal tuberculosis becomes hyperplastic and the formation of tuberculomas may cause partial obstruction of the lumen. These lesions may progress and they deserve active treatment.

3. Fibrostenosis may result from the healing of hyperplastic or ulcerative lesions. The clinical importance of a fibrostenosis depends upon its location and the degree of obstruction which it causes. Death has resulted directly from obstruction. Other patients have remained chronically ill because of occurrence of bronchiectasis with retained purulent secretions, distal to a stenosis.

We have seen extension of the pulmonary tuberculosis following biopsy of tuberculous mucosal lesions, and feel, therefore, that this procedure should not be done unless some means is available for immediately cauterizing the biopsied area.

SYMPTOMS AND ROENTGENOGRAPHIC FINDINGS

Symptoms of most importance include: persistent oral wheeze and rhonci; asthmatoid attacks with tenacious sputum; paroxysmal cough and difficult expectoration; positive sputum, in spite of quiescent pulmonary tuberculosis.

Roentgenographically, *atelectasis* is significant. This may be lobar or involve a whole lung; intermittent or progressive and permanent. Failure of a cavity to collapse with adequate pneumothorax, failure of pulmonary reëxpansion and "tennis-ball" or "balloon" cavities also are caused by obstructive mucosal tuberculosis. The combination in one lung of a tennis-ball cavity and atelectasis apparently is pathognomonic of bronchial disease (Fig. 1).

Tennis-ball cavities are worthy of special note because their significance usually is not appreciated. Roentgenographically they are large and round and tend to balloon peripherally, assuming the contour of some portion of the chest. When in the upper lobe, the inferolateral margin of the cavity appears to cut sharply mesialward. A lobe or an entire lung may be replaced by a single cavity. Tennis-ball cavities apparently are produced by mucosal disease, causing an expiratory check-valve obstruction in a second or third order bronchus. The check-valve mechanism has been described by

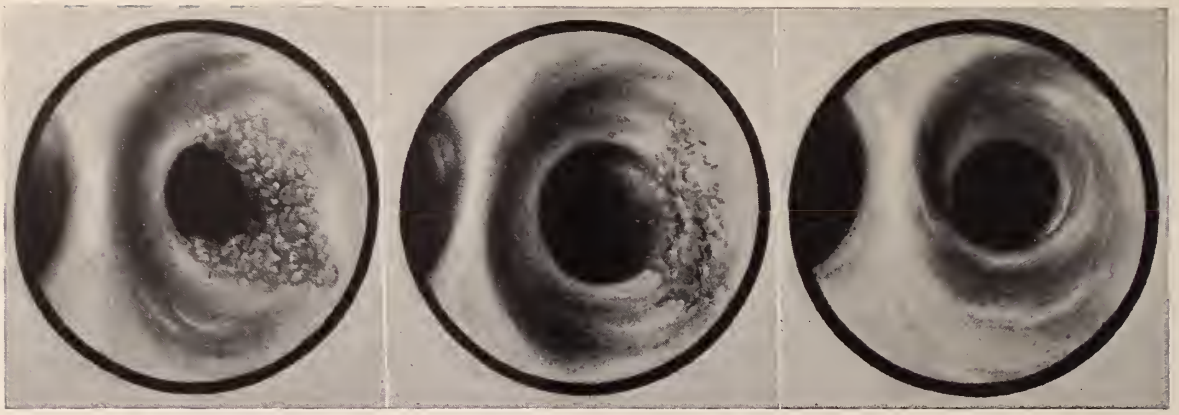


Fig. 3 (a).—Granuloulcerative mucosal tuberculosis of right stem bronchus at the carina, before treatment with electrocautery. Sputum highly positive on smear. Atelectasis of right upper lobe but no active pulmonary tuberculosis. (b) Regression after three treatments at fourteen-day intervals. (c) Complete healing after total of five treatments. The sputum has been persistently negative on culture for eighteen months.

Jackson in connection with foreign bodies in the bronchus, and more recently by Coryllos[6] in tuberculosis. Intracavity manometric pressures are usually greater than atmospheric. Following the withdrawal of air the pressures may return to positive after coughing, thus proving their connection with the bronchial tree. Salkin's[7] theory that these cavities are entirely blocked does not appear to be substantiated. He could not explain the persistence of auscultatory cavity signs in his cases, but it must have been on the basis of a bronchial connection. In cases of tennis-ball cavity bronchoscopy may be negative, but the instillation of iodized oil usually shows the obstruction in a secondary or tertiary bronchus.

TREATMENT

Experience has shown repeatedly that symptomatic medical treatment for mucosal tuberculosis is worthless. No cure has been reported from tuberculin therapy. If a suffocative death is threatened, palliation may be accomplished by bronchoscopic aspiration.

In pure fibrostenosis of a stem bronchus bronchoscopy with mechanical dilatation is the treatment of choice. This may be performed prior to thoracoplasty (Fig. 2) or between stages, if obstructive symptoms develop. Rarely the obstruction is so great that dilatation cannot be done. In these cases lobectomy or pneumonectomy must be considered instead of thoracoplasty. Pneumonectomies have been performed successfully by Jones,[8] Alexander, and Holman for extensive bronchial obstruction. Tennis-ball cavities may be extremely resistant to treatment. If collapse therapy fails, lobectomy or external drainage of the cavity must be considered. Fibrostenosis of the trachea is always grave. Collapse therapy invariably aggravates the patient's distress. Bouginage with solid dilators has not been successful, but the use of graduated-sized bronchoscopes can give temporary relief.

Since hyperplastic and ulcerative mucosal tuberculosis often is progressive, we feel that active local treatment is indicated, usually in conjunction with pulmonary collapse. Two methods only have been used with success.

If the entire lesion is accessible to the bronchoscope, we favor the use of local electrocautery with the high-frequency current. Both acute and chronic lesions can be treated. Special small-diameter bronchoscopic electrodes have been designed. Partially obstructing masses of granulation tissue can be removed and the base cauterized in a series of three or more treatments (Fig. 3). This method has the advantage of affecting only the active lesions, and often there is no great increase in stenosis. Perforation of the bronchial wall, with hemorrhage, is a possible complication. At the present time a number of cases are being treated with favorable results. Ultra-violet therapy may be used as an adjunct to electrocautery. When used alone, however, it has not proved effective for obstructing granulo-ulcerative lesions.

The second method of treatment is by the roentgen ray. Destruction of granulation tissue, healing of ulceration and hastening of fibrosis, can be accomplished. There are certain definite hazards and other tissues may be damaged. In six patients out of twelve, radiation was of unquestioned value. In the remaining six, results were poor. Roentgen therapy should not be used in patients with acute mucosal tuberculosis. In general radiation now is reserved for the chronic lesions which, because of technical difficulties, cannot be treated by electrocauterization.

In conclusion, mucosal tuberculosis of the lower airway is a relatively common complication of pulmonary tuberculosis and shows characteristic symptoms and roentgenologic changes. The importance of bronchoscopy in diagnosis and treatment should be remembered. Local treatment is indicated in the more advanced forms, including bronchoscopic dilatation, electrocauterization, ultra-violet and roentgen radiation. Occasionally the secondary effects of bronchial obstruction may necessitate lobectomy, pneumonectomy, or the external drainage of a tuberculous cavity.

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DISCUSSION

John C. Jones, M. D. (427 South Arden Boulevard, Los Angeles).—As the result of the increased and discrete employment of the bronchoscope in cases of tuberculosis of lungs with tracheobronchial symptoms, many heretofore unexplained clinical and roentgen "mysteries" have been solved. This has been accomplished without great sacrifice and discomfort to the patient, without major complications, and has led to a considerable number of patients being spared major surgery when the latter would have been fatal or at least carried a high morbidity. At the same time local treatment of these lesions through the bronchoscope will result in the arrest of tuberculous disease in a certain number of cases where persistent positive sputum alone holds the patient bedfast a long time in spite of a roentgenogram which failed to show parenchymal activity.

Of all these cases of tuberculous tracheobronchitis, probably those of a stenosing character, with tuberculous bronchiectasis and severe secondary infection distal to the stenosis, carry the gravest prognosis by virtue of their poor bronchial drainage and its inevitable severe toxicity. Collapse therapy fails to alleviate the burden of this toxicity, and may only increase it if the drainage is further hampered by "bronchial kinking." The ideal treatment is eradication of the disease by lobectomy or pneumonectomy, depending on the location and extent of the disease.

About one year ago we had a 28-year-old female with tuberculous bronchiectasis of the entire left lung as the result of a tuberculous ulcerating stenosis of the left main stem bronchus. Her temperature had been elevated to 102 and 103 degrees Fahrenheit persistently for two and one-half years, during which time bed rest, pneumothorax, and phrenicectomy had failed to relieve her symptoms. She had lost forty pounds in weight and had continued a downhill course throughout her sanatorium treatment. A total left pneumonectomy with drainage was completed eleven months ago and the patient had an uneventful surgical postoperative course. In three months she regained all her lost weight and was without fever and sputum, but a fistulous tract persisted in the chest wall when she was discharged from the hospital four months postoperatively. Unfortunately, following two months of too active life on the outside, she returned with an exudative contralateral spread which has shown a progressive clearing without excavation on return to bed rest in the hospital.



Sidney J. Shipman, M. D. (490 Post Street, San Francisco).—Doctors Pierson and Samson's discussion of tuberculous tracheobronchitis is very timely indeed. The entire subject is a new one, for although the effects of this disease have been observed for many years, the significance of the condition has remained almost completely unrecognized.

Tuberculous patients who have been doing well but who suddenly begin to wheeze, particularly if this wheezing is localized to the affected lobe or lung, should be suspected of having tuberculous bronchitis. Whether general or local treatment is advisable depends upon the individual case. Tuttle of Detroit recommends 35 per cent silver nitrate applied locally through the bronchoscope. I, personally, prefer general irradiation with the quartz lamp to the point of tanning, particularly in the early, allergic reactions which it is so important to recognize. Probably this form of treatment is less and less effective as time goes on, until, of course, it has no effect at all on the scarred stenoses.

The relationship of the condition to "tennis-ball cavities" is interesting, as the authors have pointed out. It is well recognized now that not all cavities are the result of the expectoration of caseous material, but that they develop as the result of the valve effect due to diseased bronchi. The lumen of the bronchus is diminished, the bronchus expands during inspiration, allowing air to enter the lung, but contracts on expiration and does not permit it to get out. Apparently this mechanism keeps cavities blown up or prevents their collapse. Theoretically, a return of the bronchus to normal should eliminate this mechanism, although certain writers, notably Coryllos, have contended that it would be better to have the condition go on to complete closure of the bronchus, when absorption of the air and closure of the cavity should take place. Whether either or both of these ideas are correct, time will tell.

Meanwhile the subject is a fascinating one for investigation, and it is to be hoped that Pierson and Samson will continue the work which they have so well described.

ROENTGEN TREATMENT OF CERTAIN HEMORRHAGIC DISORDERS*

By L. H. Garland, M.D.
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Discussion *by R. S. Stone, M. D., San Francisco; John C. Ruddock, M. D., Los Angeles; S. P. Lucia, M. D., San Francisco.*

FOUR years after Frank's[5] description of thrombocytopenic purpura as a separate entity, in 1920, Stephan[17] reported two cases as cured, following roentgen irradiation to the spleen. Since that time there have been many reports of single cases or small series of cases treated by irradiation, some with favorable results and some unfavorable. Doubtless, among the reasons for the variability in results is the variability in severity of individual cases of thrombocytopenic purpura hemorrhagica; another reason is the variable and, in some cases, the incomplete nature of the roentgen therapy given. With more careful classification and selection of cases, and with irradiation, especially of cases of splenic thrombocytopenic purpura hemorrhagica, results appear to be much more encouraging.

IN THROMBOCYTOPENIC PURPURA

Mettier and Stone[10] treated six patients with essential thrombocytopenic purpura by fairly large doses of roentgen rays to the spleen, and secured remissions lasting up to four years. Four of the cases were acute, and two of the cases chronic. Most of the patients received 200 r daily or every second day to the spleen, using fields approximately 10 by 15 centimeters (200 KV, filter equivalent to 1.00 millimeter of copper). A total of from six to twelve treatments was given to most of the cases. All of the patients showed remarkable increases in platelet counts immediately or soon after irradiation, the rise being approximately 500 per cent. Following the platelet response, the clotting mechanism gradually became normal and the bleeding gradually lessened. In the chronic cases the plate-

*Roentgen treatment of the spleen, to shorten bleeding time in thrombocytopenic purpura and in postoperative capillary hemorrhage.

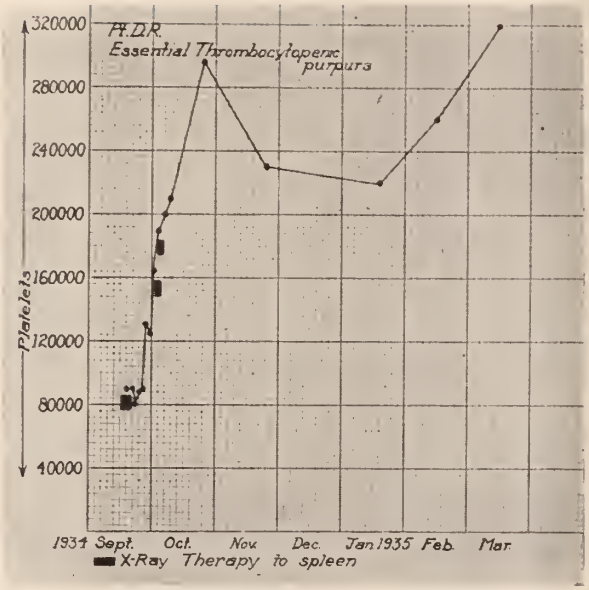


Fig. 1.—Chart illustrating increase in blood platelets, following roentgen irradiation of spleen—in case of essential thrombocytopenia. (Figures 1 to 4 are by kind courtesy of Doctors Mettier and Stone.)

lets dropped again soon after treatment was discontinued, but apparently without associated bleeding. One case of acute fulminating purpura resisted all treatment. In summary, five of six cases did well, but one patient with acute fulminating purpura died.

Rudisill [14] treated eight cases of thrombocytopenia (four purpuric and four nonpurpuric) with a somewhat similar technique, 200 r to the spleen, repeated from one to six times (200 KV, filter equivalent to 0.5 millimeter of copper, field 20 centimeters in diameter). He "found roentgen treatment so satisfactory that it is impossible to understand why it has not come to be considered practically a specific therapeutic agent in primary thrombopenia with hemorrhage." Seven of the cases showed complete remissions, lasting from one to four years, the average being over two years. One patient, a boy of eight, complicated by acute myelogenous leukemia, died of the leukemia.

Marzullo [9] reported four cases of thrombocytopenic purpura treated by x-rays, two of which patients improved but recurred, two died, one over a year after treatment. In this case, bleeding time fell from twelve to two and one-half minutes following treatment.

Results of Splenectomy.—In contrast with the above results from roentgen therapy, it is well to compare the results of splenectomy. Brown and Elliott [3] reported twenty-one cases of thrombocytopenic purpura hemorrhagica; ten were treated by splenectomy (one mild case, six moderate, and three severe cases) in eight of whom excellent remissions were secured; one of the patients improved and one died. The average duration of the remissions was over five years, varying from one to eleven years. The other eleven cases were not operated on; five improved, five remained unimproved, and one died. None was treated by splenic irradiation.

Marzullo [9] reported nine cases treated by splenectomy, five of whom recovered, two recurred, and two died.

Mettier,[11] commenting on splenectomy, observes that "removal of the spleen is not entirely satisfactory; the mortality rate is high and a high percentage of patients have recurrence of symptoms."

RATIONALE OF TREATMENT

The exact reason for improvement in purpura hemorrhagica following splenic irradiation is not known. It is quite definite that irradiation is followed by an increase in blood platelets, diminution in bleeding time,† and coincident diminution or disappearance in hemorrhagic tendency. Rudisill believes that there may be two distinct classes of essential thrombocytopenic purpura; one secondary to toxemia and one secondary to unknown causes. In the former class, "the spleen's function" of platelet destruction "need only be lowered, until the toxemia is overcome" (usually accomplished by one to three roentgen treatments), but in the latter case "it may be necessary to render the spleen permanently functionless by intensive irradiation." (The question of this so-called roentgen-ray "splenectomy" is also discussed by Mettier and Stone.[10]) Lucia [7] observes that "exposures to x-ray alter the plasma in such a way as to inhibit bleeding."

ROENTGEN THERAPY FOR CAPILLARY OOZING AND INCREASED COAGULATION TIME

There is very little literature on the control of increased coagulation time and capillary oozing by roentgen irradiation of the spleen, except incidental to that already referred to above in connection with the treatment of purpura hemorrhagica. Markovits [8] refers to work by Tichy and Nigst, but does not give any specific references. With Dr. Roy Parkinson we recently studied the effect of roentgen irradiation of the spleen in "normal" persons—mostly patients admitted to the hospital‡ for minor surgery; sixty-one patients were given a single dose of 160 r to the spleen and forty-eight patients were untreated.[13] The investigation was conducted as follows: a platelet count and coagulation time was determined at 7:30 a. m. The

† Note on coagulation and bleeding time:

Coagulation time: The coagulation time is the time which the blood takes to clot after it has been shed. As determined by different methods, it varies considerably, since the criterion of clotting is not the same in all. On this account the values are not absolute, and the results obtained by different methods cannot be compared strictly with one another. A simple method is to draw a drop of blood into a capillary glass tube about 10 cm. long, and break off a section from time to time until fine threads of fibrin appear between the ends of the broken sections; the time elapsing from making the wound to the time of fibrin development is the coagulation time (about four minutes being normal).

Bleeding time: The bleeding time is the time a drop of blood (produced by pricking the skin) takes to clot sufficiently to close the puncture and stop the bleeding. It is determined by pricking the skin and touching the wound every few seconds with a piece of filter paper, the moment when the latter ceases to be stained being the end-point (normally about three minutes). The coagulation time is a better gauge of the body's ability to protect itself against hemorrhage than the bleeding time.

In hemophilia the coagulation time is greatly prolonged, but not the bleeding time; the platelets are not decreased in number, but show lessened fragility; the clot usually retracts normally. In purpura hemorrhagica thrombocytopenica the coagulation time is usually within normal limits, but the bleeding time is prolonged; the platelets are decreased in number; the clot does not retract normally and is soft and friable.

‡ St. Joseph's Hospital, San Francisco.

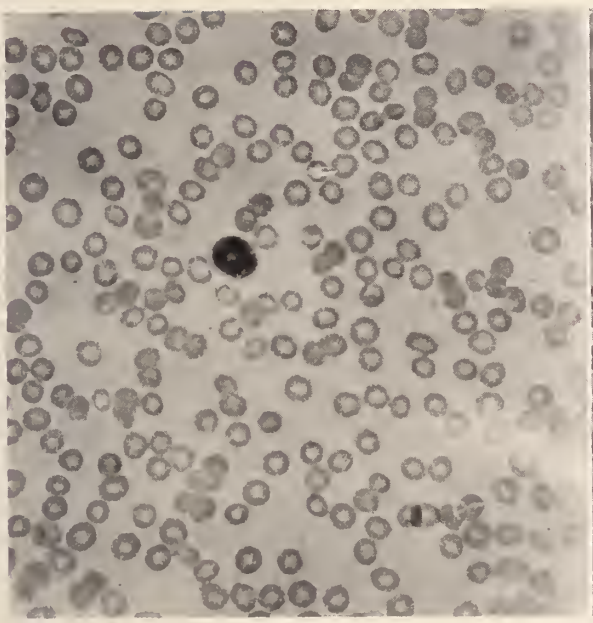


Fig. 2

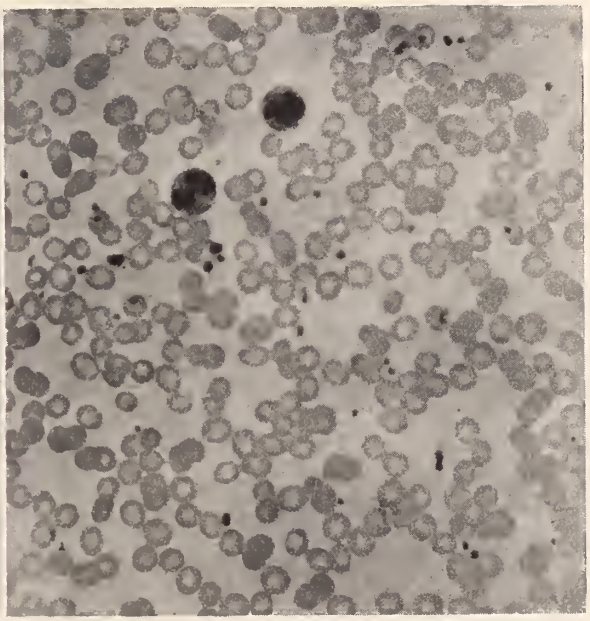


Fig. 3

Fig. 2.—Blood smear showing absence of platelets in patient with essential thrombocytopenic purpura.
Fig. 3.—Blood smear showing presence of large number of platelets in same patient as Fig. 2, following splenic irradiation.

treated cases were then given a dose of 160 r to the spleen. In a number of cases, a platelet count and coagulation time was done immediately after finishing treatment, and in all cases was done at 4 p. m. The surgical procedure was done at approximately 8 a. m. Similarly, in the control cases, platelet counts and coagulation times were determined at 7:30 a. m. and 4 p. m., and similar surgical procedures were performed at 8 a. m.

In fifty-nine of the sixty-one cases treated by x-rays there was a drop in coagulation time averaging 2.5 minutes, and an increase in platelet count of from five- to sevenfold. The most significant drops in coagulation time were in those cases in which the coagulation time taken before irradiation (that is, patient's "normal" coagulation time) was six minutes or more. For example, in a group of fifteen patients with coagulation time exceeding six minutes, the average time before irradiation was 7 minutes 41 seconds, and after irradiation 3 minutes 42 seconds. The change took place immediately. The surgeon often observed that the operative field was strikingly dry—so remarkably so that, for example, in tonsillectomy cases he was able to tell whether the patient had or had not received irradiation by the amount of capillary oozing.

In the forty-eight control cases there was an average drop in the coagulation time of a little less than half a minute, attributed presumably to the surgical procedure or the anesthesia.

Coagulation times were done by the capillary method, using one millimeter diameter tubes and taking blood from the ear. The platelet counts were done by the chamber method, using Wyckoff's modified platelet stain. Doctor Downey kindly supervised this part of the work, using different laboratory workers and internes from time to time in order to avoid bias. The x-ray factors used were 130 KVP, filter of 0.25 millimeter copper, 25 centimeters target-skin distance, 13 centimeters diameter skin area, single dose of 160 r (measured in air, without backscatter).

RATIONALE OF TREATMENT

Markovits[8] believes that roentgen irradiation causes "disintegration of leukocytes and lymphocytes in the spleen, with consequent liberation of a ferment which promotes coagulation." However, other authors (Nigst, Szenes, Gal, Amreich[8]) allege that acceleration of blood coagulation also occurs following irradiation of other organs, such as the liver, lung, and parotid. Arkussky[1] reports decrease in iron excretion following irradiation of rabbits' spleens, with associated storage of iron in the liver. Bourne[2] reports that there is a significant drop in the polymorphonuclear leukocytes in the spleen following irradiation. However, we do not know whether it is a splenic or "total blood stream" effect. Sokolov[16] has shown that irradiation affects certain mineral constituents of the blood plasma, producing physiochemical changes that affect the general organism.

INDICATIONS FOR SPLENIC IRRADIATION IN HEMORRHAGIC DISORDERS OTHER THAN PURPURA

From the above observations it is obvious that splenic irradiation is of considerable value as a preoperative measure in patients with low platelet counts or increased coagulation times. It is also of value in some benign uterine hemorrhages. Volpe[18] reports a series of cases of metrorrhagia in young women, apparently cured by doses of 200 r to the spleen repeated after five days, and again at monthly intervals for from two to six treatments. Markovits[8] suggests its use also in melena neonatorum, hemophilia, and chlorosis. We have not used it in any of these kinds of cases, but

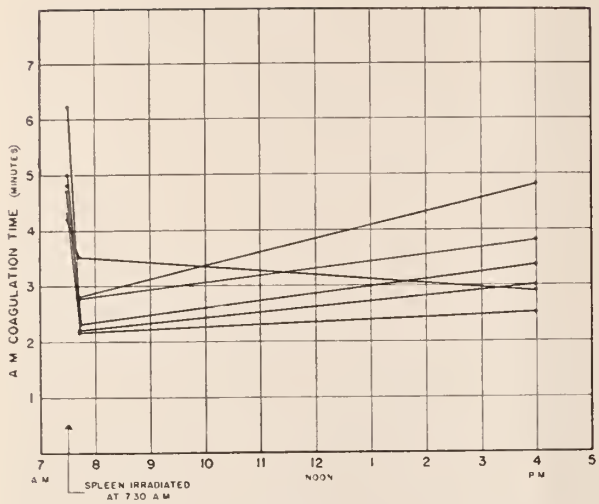


Fig. 4

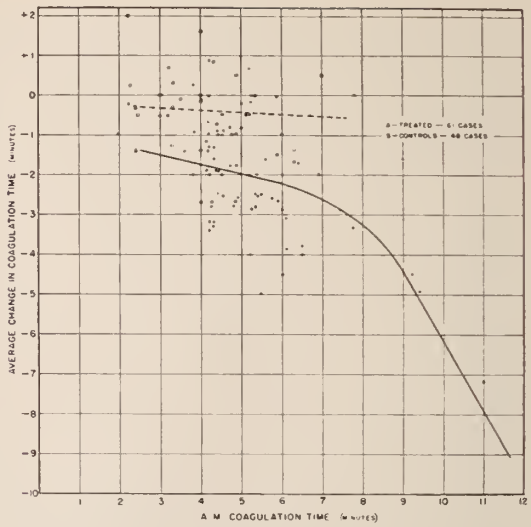


Fig. 5

Fig. 4.—Chart showing shortening of coagulation time immediately, and for twelve hours following splenic irradiation (six cases).

Fig. 5.—Chart showing shortening of coagulation time eight hours after splenic irradiation (sixty-one cases) with controls (forty-eight cases).

see no reason why it should not be tried following or in conjunction with the use of the more time-honored and simpler remedies. It may also be valuable in epistaxis, gastric oozing, and in other types of bleeding.

SUMMARY

Moderate or large doses of x-rays administered to the spleen control or produce long remissions in many cases of essential thrombocytopenic purpura hemorrhagica. A sufficient number of years has not yet elapsed to warrant the conclusion that the treatment is superior to splenectomy, but recent reports suggest that it is at least equally effective as such, with, of course, a zero mortality from the treatment itself. In cases in which it is proposed to attempt ablation of splenic function by irradiation it would be advisable to check the accuracy of the roentgen beam centering by means of a film, since the spleen is variable in position and it is obviously important to be certain that the entire organ is being irradiated.

Small doses of x-ray administered over the spleen of a patient with increased coagulation time produce rapid decrease in coagulation time, with associated rise in platelets and consequent control of capillary hemorrhage. The treatment causes no inconvenience to the patient and may, indeed, be done en route to the operating room, or, with a bedside unit, in the case of those gravely ill. Irradiation is simple, rapid and effective in a high percentage of cases.

450 Sutter Street.

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DISCUSSION

R. S. Stone, M.D. (University of California Hospital, San Francisco).—Doctor Garland was kind enough to refer, in his discussion, to the paper by Doctor Mettier and myself on the irradiation treatment of patients with essential thrombocytopenic purpura hemorrhagica. In connection with the work which Doctor Mettier and I reported, I can only add that we are still as satisfied with the method of treatment as we were when the report was made, and that patients there reported are continuing to do well. The administration of further x-ray therapy to these patients has been extremely rare.

In a recent issue of the *Journal of the American Medical Association* there was an article by Doctor Wintrobe on

purpura hemorrhagica, and in it x-ray therapy was given extremely small mention. I think that this is evidence of the fact that the irradiation treatment of the spleen for purpuric conditions is not sufficiently well understood or appreciated. This is most likely due to the fact that the amount of irradiation given in the majority of instances is not sufficient to accomplish the results desired. If only one or two treatments are given to the spleen, there may be a temporary increase in the platelet count, and a cessation of hemorrhage; but if the treatment is not carried to a much higher level the platelets are likely to drop again and the condition recur. We have found it necessary to carry the treatments to as much as 1,200 roentgens to the spleen from at least two ports in order to make the cure more or less permanent.

I have not had the opportunity to check or repeat the work which Doctor Garland has done in connection with roentgen therapy for capillary oozing and increased coagulation time. I am extremely interested in this work, and it opens up a new field. If the preoperative irradiation of patients whose coagulation time is prolonged were established as a routine, it seems likely that the marked bleeding of these cases would be a thing of the past. From Doctor Garland's report it would seem that this would be a logical step, particularly in the case of tonsillectomy operations. I hope that this work of x-ray treatment of the spleen will receive a more widespread attention, and be given a more thorough trial in the future, so that either corroboration or disproval of the results which he has reported, and those which Doctor Mettier and I reported at an earlier time, may become established.

❦

John C. Ruddock, M.D. (1930 Wilshire Boulevard, Los Angeles).—The subject of the treatment of thrombocytopenic purpura hemorrhagica is one that has been before the medical profession since 1925, at the time Pancoast, Pendergrass, and Fitzhugh published "The Status of Roentgen-Ray Treatment by Irradiation of the Spleen." Controversy between surgeons and roentgenologists has been evident as to which is the best method of treatment.

The roentgenologists certainly can say that there is a zero mortality from the treatment itself. The surgeons state that, by the complete removal of the spleen, they reduce the possibility of remissions. It is a question whether complete ablation of the spleen can be done by roentgen-ray without other effects upon the body than the purpose for which the splenectomy was done.

Cases are often encountered of thrombocytopenic purpura, with active bleeding, in which the patient is practically "bled out," and in spite of transfusions it is impossible for them to retain enough blood to build them up. X-ray therapy is slow, but I must say that it is safe at this stage. Often we must give repeated transfusions during the irradiation of the spleen, as the bleeding does not stop immediately, but may continue for a number of days before clotting and bleeding time approach normal. It is my opinion that when this has been accomplished, and by means of transfusions the blood volume has been returned to normal, that a splenectomy should be done. It is my opinion, also, that remissions, if these patients were treated by a combination of roentgen-ray and surgery, would be fewer and the surgical risks would be lessened if the patients received irradiation in order that they may be made a good risk.

The irradiation of the spleen in normal persons prior to minor surgery in order to guard against capillary oozing and postsurgical hemorrhage is excellent, and I believe it is a timely subject.

Doctor Garland should be complimented on his excellent review on the subject of this type of disease treatment, and on his calling attention to the fact that, due to the variability and severity of individual cases and variability of the nature of the roentgen therapy given, much variability will be noted in the results reported from the treatment of this disorder both by roentgenologists and surgeons.

❦

S. P. Lucia, M.D. (2529 Union Street, San Francisco). Variation in the results of roentgen irradiation of the spleen in thrombocytopenic purpura hemorrhagica is a matter not only of variability in the severity of individual cases, and in some instances of inadequacy of amount of roentgen therapy, but also of variability in the type of the disease. Thrombocytopenic purpura is usually a symptom-complex of a more complicated disease involving alterations in structure of the hematopoietic tissues and blood plasma, and in permeability of capillaries. It may be a manifestation of infections, leukemia, heavy metal therapy, or arteriosclerosis. A variety of this condition, occasionally congenital, is seen in women who suffer from endocrine glandular hypofunction. All types of purpura may or may not be associated with splenomegaly.

The purpuric state is not necessarily associated with thrombocytopenia—in fact the blood platelets may be found to be increased in numbers. Frequently it is difficult to state which factor—platelets, plasma, or capillaries—is most important in a given case. One thing is certain: that in order that purpura may occur, the capillaries must be abnormally permeable. It is indeed unfortunate that the varieties of thrombocytopenic purpura cannot always be differentiated or the mechanism of their production be understood. This, I believe, is the reason for discord in the reports of the results of treatment found in the literature.

Before the treatment of thrombocytopenic purpura hemorrhagica can be placed on a rational basis, more careful study must be made of plasma, capillaries, and platelets in individual cases. It is important also to learn the mechanism by which blood platelets are increased and the manner in which the coagulation of blood is altered after exposure to roentgen irradiation.

In conclusion, it may be stated that: (1) Acute purpura without splenomegaly is best treated by transfusion. This variety frequently proves refractive to all therapeutic measures, including roentgen irradiation and splenectomy. (2) Chronic purpura without splenomegaly (refractive to medical treatment) may react favorably to roentgen irradiation for limited periods of time. (3) Acute purpura with splenomegaly (usually secondary to some more complex disease) frequently gives a favorable response temporarily to a variety of therapeutic measures, including roentgen irradiation. (4) Chronic purpura with splenomegaly usually responds satisfactorily to roentgen irradiation.

VITAMIN D IN ACNE*

A COMPARISON WITH X-RAY TREATMENT

By Merlin T.-R. Maynard, M.D.
San Jose

Discussion *by George V. Kulchar, M.D. San Francisco; Henry J. Templeton, M.D., Oakland; Nelson Paul Anderson, M.D., Los Angeles.*

THERE is probably no skin disease of greater importance to the human race than acne. It is undoubtedly our commonest skin disease, and it is rare that any individual reaches maturity without having had it in one of its phases. It is a disease of considerable economic importance, as the disfiguring scars of a severe case are never completely obliterated. It is also a disease of youth. It attains its most noxious form at the time the individual first has to earn his own living. It is undoubtedly responsible for many failures in getting business positions. It is also the basis for inferiority complexes and discouragement in young people.

The dermatologist sees only a small percentage of patients, since many patients are not treated in the expectancy of the condition being outgrown. A goodly percentage are treated over the drug counter or by the family doctor, usually with little success. In dermatological practice, acne cases are likely to rank about third in the frequency of skin diseases, and for this reason are of considerable

* Read before the Dermatology and Syphilology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

importance to the specialist. The dermatologist has many weapons with which to attack the disease, as listed below.

OUTLINE OF ACNE THERAPY

1. Dietary.
2. Endocrine.
3. Vaccines and bacteriophage.
4. Local.
5. Physiotherapeutic.
 a. Ultra-violet light.
 b. X-ray.
6. Chemotherapy.
 a. Colloidal manganese.
 b. Saline and glucose.
 c. Sulphids by mouth.

COMMENT CONCERNING THERAPEUTIC MEASURES

I hardly need call to your attention, as dermatologists, the dissatisfaction of the above treatments; but I will run over them briefly.

Dietary treatment alone has rarely resulted in a cure. The type of diet depends upon which school of thought we follow. If we believe in a low carbohydrate diet, our results seem about the same as when we allow a dominant amount of this factor. Undoubtedly, food sensitization does play some part, and chocolate, for example, should certainly be eliminated.

The *endocrine factor* in treatment has always appealed to the professional mind. This is natural, in view of the fact that acne is a disease of puberty and its future years only. I think we can say that no endocrine extract has been sufficiently successful to warrant a major place in our therapeutic attack. When anterior pituitary "S" fraction first came on the market, I used it experimentally on twelve cases. I gave a total of 150 injections to these patients. I undoubtedly got good results in the early adolescent type, and was able to prevent the menstrual flare-up in women. I found, however, that my cases relapsed on discontinuing the injections, and the patients were dissatisfied. There is a distinct question in my mind whether or not anterior pituitary is justifiable, except as an adjunct to other therapy.

Vaccines and bacteriophage have their champions, and I believe that we may yet find these procedures to be more useful than they have been in the past. At the present time, the high cost to the patient, the time lost in treatment, and their uncertain results place them still in the experimental stage. Local treatment has been used for centuries and has changed little except in the elegance of the preparation applied.

Local treatment is of undoubted benefit, and simple cases will commonly require nothing else. The nature of the acne process, and the barrier of the hyperkeratotic reactions of the duct, with the comedone formation, make it impossible to get sufficient penetration for any deep effect. The preparations of sulphur have always dominated this field. Chemotherapy has made some definite strides in the past few years. Colloidal manganese has given excellent results in the hands of E. L. Oliver and G. M. Crawford.[1] Intravenous sodium chlorid injections have been reported favorably by Goodman,[2] G. M. Crawford and J. H. Swartz[3]; likewise have found promise in the similar use of dextrose solution. These procedures are well worth a trial. I have personally used them too little to comment on them further.

Physiotherapeutic procedures have been most prominent in the last two decades. These have mainly consisted of ultra-violet light and x-ray. About ten years ago ultra-violet light began to wane in popularity. In the past few years a review of the literature shows that the firm position of x-ray has been somewhat undermined. A decade ago x-ray was used almost without question on all patients. We found it of much value. We were able to produce cures and excellent cosmetic results. We were successful in severe cases that were doomed to lifelong disfigurement, unless the process was quickly stopped. X-ray still dominates the field in severe cases. It has been my experience, and I am sure the experience of all of you, that too high a percentage of cases will relapse after x-ray therapy, if that alone is used in treatment. I do not deny that we can get more cures with x-ray than with any other procedure. But the reasons for failure, and the reasons for relapse, have been behind the development of the study here presented. I might say that a further disadvantage to x-ray is that its competent use is only sparsely available to the patient. There is a great hinterland of the country where skilled roentgen therapy is unheard of, and the acne sufferers must depend upon the advice of the general practitioner for care. I, therefore, believe it is the responsibility of the dermatologists to place in the hands of these practitioners the type of treatment that will halt or modify the ravishes of disfiguring acne. I should not neglect to say, however, that x-ray therapy, properly used, will not produce damage to the patient. Ultra-violet light therapy has been discouraging, because it does not prevent recurrences of the disease, and requires numerous and expensive visits to the doctor's office.

In the foregoing part of this paper an attempt has been made to point out forms of treatment that have a definite value. I would say that, as a general rule, the disadvantages are those of requiring frequent treatment, expense of administration, and lack of general constructive effect.

VIOSTEROL IN ACNE

The patient commonly asks the doctor if he "shouldn't have something for his blood." We also feel that the patient should be put in the best possible health. The missing elements, or the excess thereof, that cause acne to develop in the adolescent, should receive every intelligent consideration. It was in response to this need that, in 1933, I started, in acne cases, giving viosterol by mouth. This was stimulated later by the results of A. Doktorsky and S. S. Platt.[4] I read an abstract of this paper in January, 1934, in the Year Book of Dermatology. I then began to use vitamin D in all cases, and have continued it up to the present time. The use of vitamin D seemed to fit in where needed. It improved the patients' general nutrition; many of them put on weight, and the majority of them felt much better. Its use

seemed rational. Vitamin D is synthesized in the skin on exposure to sunlight. Might not this be the factor that caused healing on ultra-violet therapy? Vitamin D is a mobilizer of calcium. It is probably withdrawn from its reservoir in the skin at puberty for the purpose of the utilization of calcium in growth of bone and muscle. Vitamin D has the further advantage of reasonable cost.

The subject of vitamin effects in the body is so large that I will not attempt to make a prolonged dissertation on the subject. The Council of Pharmacy and Chemistry state that the following are allowable claims in relation to vitamin D:

> Animal experimentation has shown that correction of an inadequate dosage of vitamin D results in the more economical utilization of calcium and phosphorus, and also that the undesirable effects of improper ratios of calcium and phosphorus in the diet can largely be overcome by normal intake of vitamin D. . . . It may be stated that vitamin D has a favorable influence on calcium and phosphorus metabolism.

DANGERS OF VITAMIN D ADMINISTRATION

Dr. C. D. Leake [5] has pointed out that certain dangers exist in the unregulated intake of vitamin D preparations. He states that these symptoms are largely due to the substance "toxisterol," and that this preparation should be carefully guarded against in the manufacturing of the product. The symptoms brought on by vitamin D toxicity appear about two weeks after the high daily dosage begins. The patient is nauseated, dizzy, and has tingling in the extremities. There may also be vomiting, diarrhea, and polyuria. Mild symptoms of toxicity occurred twice in my series of cases.

In regard to dosage of vitamin D, we probably have considerable latitude. The statement is made that 200 drops a day may be given with safety to juveniles. The Council on Pharmacy and Chemistry of the American Medical Association suggests a maximum daily dose of 1,000 units in lay advertising. Larger doses, of course, may be given under the supervision of a physician. C. I. Read of Chicago, in a study made of the administration of highly concentrated vitamins of 10,000 X gave to three hundred patients, ranging from seven to seventy-two years of age, doses of from 3,000 to 2,760,000 international units daily, or a maximum of 920 times the normal antirachitic dose of 3,000 international units. This group of forty-three patients showed symptoms of toxicity of varying degrees.

GENERAL PHYSICAL EFFECTS

The general physical effects of viosterol administration are those of increase of appetite, improved food absorption, gain in weight, and a general sense of well-being.

The reaction of the patients on the mental side has been helpful. Their improvement in appetite, and often a lessening of fatigue, have been factors of value in getting coöperation in treatment. In no instance, except in the above-mentioned cases of intolerance, have I had a patient dissatisfied with this form of treatment. From the standpoint of the physician it effectively answers the old question, "What can we do to improve the patient's general health?"

DISCUSSION

Before going forward with the discussion of my survey I wish to state that I cannot claim that viosterol is more effective, if given alone, than it might be when incorporated with the other recognized vitamins. It is quite possible that the addition of vitamin A would be of value, and it is my intention to make a further survey of cases in which this has been done. Up to the present time, however, I do not believe that the addition of vitamin A helps the patient's response, and it does definitely increase the expense. It is also likely that vitamin D is not the most effective of this group, and only a future series will make possible a comparison.

I consider the following cases to be fair illustrations in this series.

REPORT OF CASES

Case 1.—December 5, 1936. R. W., age thirteen. Adolescent acne comedone. Sister, age thirty, has acne. Number of deep lesions present. Given lotio alba cream and viosterol, twenty drops each morning.

January 9, 1937. Appetite fine. Skin dry and much better; deeper lesions absorbing.

February 13, 1937. Pimples stopped; blackheads dry. To apply hot compresses to remove. This patient is illustrative of a normal response.

* * *

Case 2.—June 17, 1935. Miss B. H., age nineteen. Acne two years. Feels tired; menses normal; bowels somewhat constipated. Acne of deep cystic type in chin area. Viosterol, twenty drops daily, prescribed.

July 9, 1935. Weight 119, gained three pounds; appetite better; still tired; acne distinctly better.

August 6, 1935. Better.

September 3, 1935. Weight 117 pounds. Almost healed.

January 31, 1936. No longer tired; feels fine. A few new lesions around Christmas time. Entirely satisfactory.

This patient gives evidence of general favorable effect.

* * *

Case 3.—February 18, 1935. J. D., age seventeen. Severe acne two years. Lesions deep with marked induration. X-ray considered advisable. Given viosterol, twenty drops daily.

March 4, 1935. Distinctly better. Unable to afford x-ray.

March 22, 1935. Letter stating, "Getting along fine. Face much better."

April 9, 1935. Letter stating, "Feels much better, and face looks 100 per cent better."

This patient gives verbal evidence of enthusiasm.

* * *

Case 4.—March 16, 1934. C. D. Severe acne vulgaris of the face for three years. Past history was negative. Mother had acne. X-ray considered advisable. Given lotio alba cream and viosterol, twenty drops daily.

April 27, 1934. Much better.

June 25, 1934. Better; a few pustules with last menses; appetite better; has gained weight.

June 8, 1935. Has been much better, but recently has relapsed moderately. X-ray advised. Given x-ray, sixteen treatments, with complete healing.

This patient demonstrates improvement with partial relapse, but also a slow response to x-ray treatment. This patient would be a slow result with either treatment. The response to viosterol is favorable, however.

Case 5.—August 13, 1934. A. C., age 21. Acne, moderately, four years. Has had one and one-half years of x-ray treatment by dermatologist elsewhere. Healing unsatisfactory. Menses irregular, and is constipated, high-strung, and nervous. Was given viosterol, twenty drops daily.

September 14, 1934. Better.

October 13, 1934. Doing well.

November 10, 1934. Healed.

The above case demonstrates healing with viosterol after failure with x-ray.

* * *

Case 6.—August 3, 1935. M. R., age twenty. Severe acne, with scarring, for six years. Had fifteen x-ray treatments by dermatologist elsewhere without healing. Given viosterol, twenty drops daily.

September 30, 1935. Much better. Gained five pounds.

May 25, 1936. Having no lesions. Taking forty drops of viosterol daily.

September 28, 1936. Still healed.

Illustrative of healing after x-ray failure.

* * *

Case 7.—June 16, 1936. R. K., age twenty-six. Acne since age fourteen; cystic type. Given viosterol, forty drops daily. On July 10, reduced to thirty drops.

September 18, 1936. Gained six pounds. Has more vigor, larger appetite, sleeps better. Practically healed.

The above patient demonstrates an undoubted response.

* * *

Case 8.—November 28, 1936. M. W., age twenty-one, male. Cystic abscesses back of the neck. Given viosterol, twenty drops daily. Advised that x-ray probably would be necessary.

December 11, 1936. Appetite much better. Lesions absorbing. Takes twenty drops daily.

January 8, 1937. Much better, absorbing.

March 5, 1937. All lesions healed.

The above patient demonstrates an exceptional result from what is commonly a resistant form.

* * *

Case 9.—February 29, 1936. F. F., age seventeen. Severe acne for four years on face and back; has considerable scarring. Tires easily, otherwise in good health. Given viosterol, forty drops daily; also iron.

April 18, 1936. Some flare-up with menses.

May 23, 1936. Feels a lot better generally; about 80 per cent improvement.

July 18, 1936. Relapsing. Is living in very hot climate. X-ray advised, and was given thirteen treatments. Healed.

March 4, 1937. Moderate recurrence.

The above patient demonstrates healing followed by relapse on change of climate in spite of excessive sunlight, healing with x-ray, with subsequent partial relapse.

* * *

Case 10.—October 27, 1935. N. D. M., age twenty-four. Deep cystic acne on face of several years' duration. Given viosterol, twenty drops daily; also hydrochloric acid.

November 19, 1935. Two pustules only. Viosterol increased to forty drops daily.

February 18, 1936. Splendid result. Complete healing.

November 2, 1936. Did not take viosterol during summer and has relapsed. The patient requests x-ray treatments. X-ray was given; twelve treatments, with complete healing.

The above patient demonstrates complete healing with viosterol, with subsequent relapse, followed by healing on a normal amount of x-ray treatment.

* * *

Case 11.—August 17, 1936. A. C., age twenty-one. Acne for five years; deep pustular type. Given viosterol, forty drops daily.

October 17, 1936. Viosterol reduced to twenty drops. About the same.

November 24, 1936. Acne completely healed. Skin oily.

February 11, 1937. Still healed.

The above patient demonstrates the healing of acne without influence on the oiliness of the skin.

COMMENT ON AUTHOR'S SERIES

My study has taken me through all of my acne cases since 1930. I discarded from my list those patients that failed to report back for a sufficient period to be studied. My total survey comprised 480 cases. The cases eliminated because of incomplete or confusing factors brought the survey down to 255. Of these, 123 patients were treated by means other than the use of viosterol, and 132 on viosterol; 86 were treated with x-ray. The dietary instructions were identical in both series. The patients were instructed to eat plenty of green vegetables and lean meats, preferably rare, with fruits for dessert. The local applications were also identical, being lotio alba or the similar paste-like cream. In a few instances other factors, such as iron or hydrochloric acid, were added because of an existing anemia or digestive disturbance. Of those receiving viosterol the dosage was started at twenty drops each morning. Of these, in many patients the dosage was later increased to forty drops. Eighty drops a day were used on two patients. The reason for the morning dose was to take advantage of the influence of sunlight on the synthesis of vitamin D in the skin.

By testing, I found that the average dropper delivers about thirty drops to a cubic centimeter. The patient received twenty to forty drops daily, a few receiving eighty. The dosage averaged probably 5,000 to 14,000 units at a dose. Those on the higher dosage may have healed more promptly in a few instances.

It is unfortunate that on starting the use of viosterol I did not expect the good results I later observed. I, therefore, have had to rely on a tabulation made from my remarks on each patient's history. I believe, however, that, if anything, they belittle the actual results, as my satisfaction with the procedure has been complete.

I am not going to present this long series of cases because the tabulation would be boresome to you. If any of you are interested in surveying the charts, they are available. The following data were kept on all these cases: age, duration, sex, menstruation, constipation, physiological factors, local treatment, general treatment, dosage of viosterol, x-ray treatment, observation at one month, observation at three months, total observation, and final remarks. Specimen tabulation is seen on this slide. The results of this tabulation are as follows:

Table 1.—*Patients Treated With X-Ray Without Viosterol*

Not noted one month	12		
Unimproved at one month	45		
Better at one month	29		
Unimproved at three months	17	20%	
Better in three months	30	35%	
Much better in three months	13	15%	15%
Healed at three months	26	33%	33%
Satisfactory in three months			48%
Healed, final note	56	63%	
Relapsed	21	25%	
Unsatisfactory throughout	20	23.3%	
Total number of cases treated with x-ray			86

TABLE 2.—*Patients Treated With Viosterol*

Not noted one month	0		
Unimproved at one month	6		
Better at one month	87		
Much better at one month	38		
Healed at one month	1		
Total cases viewed at one month	132		
Unimproved at three months	10	14.2%	
Better at three months	8	10.2%	
Much better at three months	20	28.5%	28.5%
Healed at three months	32	47.1%	47.1%
Satisfactory in three months			75.6%
Total viewed at three months	70		
Unfavorable on viosterol	2		
Viosterol cases requiring x-ray	3		
X-ray advised at the first visit found to be not necessary later	9		
Relapsed	1		

It is interesting to note in this series that 100 per cent more patients failed to return after one visit, when x-ray was advised, than when viosterol was prescribed. It will also be noted that I have made a direct comparison only with cases treated with x-ray; the only difference in treatment in this series being through the use of x-ray in one series, and viosterol in the other. Although the number of cases surveyed was considerably greater than those shown, the elimination of the non-x-ray cases has brought the total down to 204.

SUMMARY

I believe I may say that at no time in my dermatological experience have I felt such complete satisfaction with a treatment as I have with the cases of this series. I know that vitamin D is an imperfect weapon to slay this disfiguring disease, but it undoubtedly gives one a feeling of being well defended. From the patients' viewpoint, it has left little to be desired, as they find themselves improving, both in appearance and in general well-being. Many have expressed the sentiment, "Never felt better."

IN CONCLUSION

Briefly, I wish to mention some fortunate side-observations in patients presenting other skin diseases. Two cases of localized scleroderma healed completely. Three patients with alopecia areata grew their hair without other treatment. Psoriatics gave me the impression of improving more rapidly. One patient, a generalized exfoliative case of this disease shown to the San Francisco Dermatological Society at the height of eruption, has stayed well without a spot for a year. One case of old x-ray atrophy improved 100 per cent, and one severe pernio was similarly relieved. Three out of four cases of granuloma annulare healed completely.

I recognize that there is much that is intangible in this paper, as personal impressions are apt to be erroneous if enthusiasm is a persuading factor. I have, therefore, examined very critically those cases that were seen before viosterol was being regularly prescribed, and was given only where a "tonic" was considered to be good "policy." The results in these instances were the cause of my future enthusiasm. I have also recorded, in many instances, the enthusiasm of the patients, especially in letters received later. The percentage of cures and marked improvement is still low. Perhaps the dosage is not optimal, or that large doses of calcium should also be used. The other vitamins may further add to success. The wrong tree may have been chosen to bay around and another factor of greater importance missed. I believe that all these things are to be weighed, and that time and usage will bring this out. It is my intention to attack these problems in turn, and hope to report again when a sufficient number of cases have accumulated.

407-408 Medico-Dental Building.

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DISCUSSION

GEORGE V. KULCHAR, M. D. (450 Sutter Street, San Francisco).—The well-controlled series reported by Doctor Maynard suggests that large doses of vitamin D are more effective in the treatment of acne than x-ray. The percentage of satisfactory results, both immediate and permanent, secured with roentgen therapy in his series is considerably less than that usually obtained, and may be due to the most severe cases requiring x-ray therapy. Most observers report from 80 to 95 per cent of satisfactory results with roentgen therapy (McKee, Andrews), and less than 10 per cent of relapses. Unsatisfactory results, including relapses, are due usually to inadequate dosage. By careful preliminary testing, adjustment of dosage, and watching for early evidences of reaction, x-ray therapy in most instances can be carried out to 1200-1500 R doses without injury to the skin. It remains our most effective treatment for acne.

The acne form dermatoses result from a disturbance of the pilosebaceous apparatus. This may be due to external irritation from oils, tars, or gases, or hematogenously by allergens, products of the tubercle bacillus, or the halogens. Their effect on patients with acne vulgaris is well known. It is reasonable to suppose, as Sulzberger and others have suggested, that some hormonal stimulation of the pilosebaceous apparatus, resulting in the comedone formation, is an important factor in the genesis of acne. The persistence of activity in the sebaceous gland, an invagination of the epidermis, with the secondary invasion of bacteria, results in the acne lesion. Similar keratinizing metaplasia in the pilosebaceous apparatus has been reported by Lowenthal and by Frazier, and Hu in vitamin A deficiency, with the production of comedones over the face, and in numerous instances acne which disappeared on restoring the vitamin A content of the diet to normal. The histological similarity of the lesions reported by these observers to the involuting acne lesion is striking.

Because of this I have used vitamin A in 55,000 unit doses daily, in addition to amounts of D equivalent to those used by Doctor Maynard. My patients have not been so well controlled and many received x-ray therapy in addition. Aside from the "tonic" effects, I have been impressed with its value. However, the percentage of satisfactory results in patients not receiving x-ray have been considerably less.

The combination of vitamin A with D may have the advantage, as suggested by the laboratory studies of Gross-Selbeck, of decreasing the toxicity of the latter.

It is only through such well-controlled and extensive studies as Doctor Maynard has made that effectiveness of

vitamin therapy in management of acne, where so many factors are involved, can be determined eventually.

☙

Henry J. Templeton, M.D. (3115 Webster Street, Oakland).—Several years ago I treated a few cases of acne by means of viosterol. Because of failure to note improvement, I abandoned the treatment. I must state, however, that I kept no careful records of my results and that I did not control the experiment. Moreover, my dosage was five to ten drops a day, which may have been inadequate.

Having heard Doctor Maynard's interesting results dealing with a large series of cases, and feeling the need of something to supplement the one remedy that I believe is of definite value, namely, x-ray, I will resume viosterol therapy in selected cases.

As Doctor Maynard has stated, any favorable action of viosterol on acne might well be due to its influence upon the calcium metabolism. We can recall that calcium has been claimed to have been of value in acne when given intravenously. The well-recognized fact that sun baths are of value in acne may be due to their synthesis of viosterol in the skin. What relationship this bears to the pigment-producing mechanism of the skin, I do not know; but it is my experience that the value of sun bathing and ultra-violet light therapy (excluding cases treated by heavy exfoliating doses) is directly proportional to the amount of tanning produced. Acne in the blond patient who freckles and peels but who cannot be tanned, does not respond as well as in the brunette. I should like to ask Doctor Maynard as to whether or not he has noted any difference in results in blond or brunette patients with viosterol?

☙

Nelson Paul Anderson, M.D. (2007 Wilshire Boulevard, Los Angeles).—Doctor Maynard has given us the result of his experience in the therapy of acne vulgaris with vitamin D. This line of therapy should especially appeal to the physician who is continually requested by acne patients to prescribe some general tonic or blood medicine. It would seem advisable, however, to remember that, from a scientific standpoint, the most satisfactory results in medical treatment are those developed for conditions whose etiology is known. In other words, all rational therapeutics is based upon cause. Our knowledge of the etiologic background of acne certainly leaves much to be desired. Personally, I feel that the true etiology of acne has an endocrine basis, but am perfectly frank to admit that at present all treatment of this nature has been unsatisfactory. It may well be that vitamin D, in its regulation of calcium and phosphorous metabolism, also effects changes in the endocrine glands, and that these functional changes in turn act upon the sebaceous glands which are involved in acne vulgaris. The fact that vitamin D apparently benefits acne vulgaris is to me of much less importance than the question of how it produces its benefits.

TRAUMA AND MALIGNANCY*

By Edwin I. Bartlett, M.D.
San Francisco

Discussion *by George D. Maner, M.D., Los Angeles; Alson R. Kilgore, M.D., San Francisco.*

A BELIEF that malignant disease may result from trauma is so prevalent that approximately 100 per cent of the laity and most of the profession have come to look upon trauma as a causative factor. Not many years ago not only the ignorant, but the majority of the more intelligent classes accepted without question trauma on the head in infancy as the cause of insanity. Today trauma as a causative factor in malignant disease is accepted without question, and the doctor is "on the spot" indeed if he is so careless as to express an opinion to the contrary. In taking histories on patients with malignant disease, invariably the patient volunteers the information regarding the trauma which caused the disease. Occasionally, when the patient is unable to remember a particular trauma, he apologizes for being so ignorant and unobserving. Where these ideas come from it is not altogether clear, but they must originate, in part at least, from the rather loose teachings of former years, and court decisions too often based upon the rather glib testimony of members of our profession. Of more recent years the profession itself, in the more scientific circles, have come to the realization that there may not be such a close relationship, and has learned to approach the subject with an open mind. The courts also have become awakened to the situation, and have accepted certain rules and regulations laid down by the students of pathology of tumors.

CAUSATIVE FACTORS OF MALIGNANT DISEASE

A study of this problem leads one immediately to the consideration of the causative factors of malignant disease. There are many interesting theories, the most popular, today, being that there is a loss of control or balance among the cells of the body. This loss of control might be a change in the particular cell which enables it to escape from under inhibiting influences which normally keeps it in place, or it may be the loss of the inhibiting properties of cells which maintain control, thus allowing a cell with normal growing tendencies to proceed to develop without any inhibitions at all. Granting that one or the other of these theories is correct, we are then led to the consideration of how this comes about. Investigations in this direction have favored a general acceptance of the theory that there is a change in the physiology of the body, probably chemical, which makes an individual susceptible to the development of malignancy, or there is the existence congenitally to some unbalance in the physiology of the body. But this does not explain why a malignancy should develop at any one particular place. To answer this question, one must seek for some strictly localizing determining factor, or tissue disturber. Trauma being the commonest and an easily understood tissue disturber, one would naturally look upon injury to tissues as the most likely factor in determining the exact site of the malignant development. When one considers, however, the very great frequency of traumas, many of them violent in the extreme, and the relatively infrequent instances of malignancies, one must approach the subject with only the greatest of misgivings, and with the mental admonition to exert extreme caution lest one be led astray.

SINGLE DIRECT VIOLENCE AND MALIGNANT DISEASE

The relationship of the single direct violence with the development of malignant disease for many years was admitted, but in recent times, beginning with the critical analysis of James Ewing and his about-face, the pendulum has swung to the other extreme, and students of this subject are of

* Read before the Industrial Medicine and Surgery Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

the opinion that very rarely indeed do the facts bear out a scientific conclusion that the single direct violence is a factor in any sense in the development of malignant disease.

REPEATED TRAUMA AND MALIGNANT DISEASE

The relationship of repeated trauma to the development of malignant disease must be admitted, especially if one includes under the heading of trauma, long-continued irritations by chemicals, etc. Repeated direct violence possibly does result in rare instances in malignancy. One instance in the author's experience of repeated direct blows to the nipple, in a male of cancer age, was associated with the development of a cancer of the breast at the end of an approximate five-year period. The rarity, however, of such an occurrence should definitely limit the development of malignant disease from this cause to a rare occasional occurrence, and there should be in the history a record of continual soreness or repeated abrasions to the skin, or other evidence that the trauma was causing disturbance in the tissue at the exact site of trauma.

STIMULATION TO MALIGNANT GROWTH

The stimulation to a more rapid growth and possibly to a more primitive or malignant type of lesion by trauma, single or multiple, cannot be denied, inasmuch as it has been repeatedly observed that cutting into a malignant disease produces almost immediate increase in local spread and early metastasis. This stimulation to more rapid growth must be in the nature of an opening of channels for the escape of cells locally or into the circulation, and an increased vascularity attendant upon the reparative process which follows the wounding of tissues. Trauma may accomplish this stimulation to malignancy, therefore, provided there is a break in the continuity of the tumor and surrounding tissues, or provided it constitutes a major form of irritation which produces a high degree of vascularity. Obviously, therefore, minor traumas in this connection cannot be taken into account, and the major traumas only can be considered.

The stimulation of benign tumors to become malignant must also be admitted, provided a given benign tumor is capable of becoming malignant. For instance, a benign pigmented mole invariably takes on malignant changes following any form of trauma which interrupts the integrity of the surrounding tissues or sets up an inflammatory reaction among the normal surrounding tissues. Also an intraductal papilloma of the breast, which sooner or later becomes malignant, might take on malignant degeneration when the requirements above mentioned are fulfilled.

Among the bone tumors there is one, and probably only one benign condition which may be excited by severe trauma, and that is the chondroma. Such a tumor, either central or external, has a strong tendency in middle age to take on a more primitive form and malignant invasion. In earlier life, however, such tumors may spread locally, but maintain the same type of adult cell wherever the cartilage cells become spilled into surrounding tissues, or wherever there is a break in the wall of the surrounding tissues through which the cells may wander. Trauma, therefore, must be considered in this type of growth when all the requirements are met and the age of the patient is favorable.

MEDICO-LEGAL PHASES

From the medico-legal standpoint in any given case there have been set up certain requirements which must be met in order to establish a reasonable supposition that trauma has played a part in the malignant process in question. These requirements have been discussed at great length in innumerable contributions, and the subject is so well known to every member of the profession that the enumeration of these factors would be superfluous. On the other hand, a limited discussion of each point, from the standpoint of the scientific value, might not be amiss in the view of the obvious confusion which exists in the minds of the profession regarding the value of each point in drawing medical scientific conclusions.

In order of their importance, one would place, first, a positive diagnosis of the presence and nature of the tumor. While it may seem absurd to lay emphasis on this point, all too frequently cases come up for discussion which have been the subject of lengthy reports and have even come up before the courts without positive proof of the nature of the tumor. Not always is a tumor mass a malignancy. It may be benign, or it may be a secondary tumor transplanted from some distant focus, or it may be a tumor which, because of its nature, could not possibly have been related in any way to trauma.

The integrity of the wounded part prior to the alleged trauma must be established. This requires that the evidence must be indisputable. Not infrequently a woman of cancer age comes with a tumor, and a history of trauma which she believes was the causative factor, because she did not find the tumor prior to the trauma. Investigation reveals a fair-sized carcinoma which could not possibly have developed in the few hours, days, or weeks following the trauma. Another illustration is the injury to a limb: x-rays taken as a routine for the possibility of a fracture reveal a bone cyst. No relationship can be possible, regardless of the history, inasmuch as the man is thirty-five, and these tumors do not develop after twenty.

The authenticity and adequacy of the trauma is not a problem for the doctor. The history must show a mark, or the development of an hematoma or the development of an ecchymosis, or some equally indisputable finding to prove the exact site of trauma. A minor trauma could not produce this picture, so the trauma must be far above the average in severity.

The tumor must develop at the site of the trauma and not at some distant part. This fact is obvious to the most primitive minds, and yet there are many instances related in the literature of attempts to establish a relationship of trauma on one part of the body to tumor development at another site. The only possible way in which there could be a relationship is through the trauma acting in the capacity

of an agent, which alters in some way the body's general resistancy to malignancy. Such a change in the chemistry or physiology which results in a nonresistant individual has never been proved. Even a trauma—physiological, chemical, mental or otherwise—which produce very marked changes, such as loss of weight, weakness, anemia, or any other gross debilities, cannot, even as a secondary factor, be related to malignancy developing elsewhere in the body.

The interval between the time of injury and the appearance of the tumor can only be of significance when it coincides with the microscopic findings. The same is true as regards the rate of growth. A slow-growing tumor of low malignancy cannot be fitted into a history of a tumor appearing within a week or two after trauma. On the other hand, a rapidly growing tumor with primitive cells cannot fit into a history of a tumor developing a long time after trauma. This last point is the most difficult problem of all for the medical man to decide, provided the chronological history is indisputable. Perhaps no one is capable of answering this question correctly in every case, but surely the only one capable of even approximating the truth is the man who has had a great deal of special training in all forms of malignancy.

In the event of a doubtful or a not positively proved instance, responsibility must lie with the patient. Without positive proof, scientific conclusions are valueless and are never accepted as scientific factors, and as doctors and scientists, at least nominally, it is our duty to judge in these medico-legal situations from the purely scientific standpoint. We are not the judge nor the jury. We are simply witnesses. While it invariably is true that our sympathies are with the patient, and while we may feel as the majority of the human race feels, that the individual should have the advantage against a corporation, still we have no right to allow our prejudices to influence in any way our scientific conclusions.

In spite of the truth of these facts, which I am sure everyone present will admit, we must confess that too many of the medical testimonies are based on other than scientific conclusions. This is because some members of our profession will testify to almost anything to help win a case to satisfy the ego or to collect a fee. Some of us are just too human, and are constitutionally unable to allow our minds to draw conclusions unbiased by our sympathies. A large majority of us are simply trying to solve scientific problems without the proper scientific background. There never will be a remedy for this situation until it is recognized by our profession and by the courts that there is a difference in value in the testimony of scientific import. Perhaps it is not too optimistic to look forward to the time when our profession will consent to the selection of a panel of competent scientists, and the courts will recognize these individuals and no others, as the proper authorities for testimony where these scientific matters are involved.

490 Post Street.

DISCUSSION

GEORGE D. MANER, M. D. (657 South Westlake Avenue, Los Angeles).—This discussion shall be confined to the causal relationship of single trauma to malignant tumors: for the question of the relationship of repeated or continuous trauma to neoplasm is too complex to be adequately debated in so short a time. To those interested in the subject it is suggested that they consult the excellent résumés of Ewing, Mock and Ellis, Knox and others.

Unfortunately, there exists in the mind of the profession considerable confusion as to the causal relationship of single trauma to malignant tumors; this is probably because the earlier concepts were based mostly upon clinical observations. As our knowledge relative to the natures of malignant tumors and their natural history advances, it behooves us to revise these concepts and apply more strict scientific criteria.

It is the unanimous opinion of competent pathologists that single trauma never produces a malignant tumor in previously normal tissue. There is no conclusive experimental evidence that a single trauma either can aggravate or stimulate the growth capacity of a malignant tumor, determine its metastatic dissemination or fix the site at which metastases may eventually localize.

This subject is one of vital importance to industrial surgeons because of claims "based upon" tumors allegedly developing after injury. For their information the postulates of Mock and Ellis are listed:

1. Reasonable proof of a trauma of sufficient seriousness to cause definite tissue changes: (*a*) the injury must be reported within a reasonable period after its occurrence. (*b*) The examination and condition of the traumatized tissues must be reported by a physician within a reasonable period after the injury.

2. The developing neoplasm must be at the same site as the original injury, and must involve some of the tissue which, without reasonable doubt, could have been involved in the original trauma.

3. Definite evidence must be produced to prove that no neoplasm existed at the site of the injury prior to the accident.

4. In addition to the history of trauma, there must be a history of definite bridging signs, such as persistent swelling, an unhealed wound, or additional anatomical disturbances which connect the trauma with the malignant growth; subjective symptoms, such as complaints of pain, tenderness or weakness, are impossible to evaluate or visualize and, therefore, must not be considered competent evidence.

5. The time which has elapsed between a given trauma and the development of a malignant tumor need not be considered, if the foregoing conditions have been present; however, it is safe to say that a malignant tumor that develops within two weeks after trauma existed prior to it.

6. A preëxistent malignant tumor may be aggravated or accelerated in its growth by a trauma, or the trauma may be the first factor to call the patient's attention to the tumor. Treatment should be instituted at once to eradicate the tumor, or at least to prolong the patient's life. Under our present laws, which provide for compensation in case of aggravation of an existing condition by trauma, the employer or his insurance company would be held responsible for this treatment, provided aggravation could be shown, and would be forced to pay for the permanent disability that might follow. He should not be held responsible for the subsequent death of the patient due to malignancy, for the trauma could not aggravate to the point of fatality a preëxistent condition which already positively doomed the patient. Nor should he be held responsible for hastening the death, for this point could only be one of speculation on the part of the medical profession.

7. In the case of a metastatic or secondary tumor developing at the site of trauma, the first four postulates must be met before the employer is held responsible, and such responsibility should be limited to the treatment of the local condition; it should not be extended to include responsibility for the death that is bound to occur shortly, as the trauma could not have aggravated the primary growth.

*

ALSON R. KILGORE, M. D. (490 Post Street, San Francisco).—Until the actual cause of malignancy is demonstrated we shall probably be unable to prove positively that

mechanical injury (as distinguished from chemical or other forms of injury) has nothing to do with it. But I think we must agree with Doctor Bartlett that the trend of informed medical thought is more and more toward this conclusion. Mechanical injury is extremely common and the incidence of malignancy following it so small as to be explainable on the basis of coincidence. It is ignificant that no authentic case of skin epithelioma following a single blow has been observed. And the modern knowledge that carcinogenic agents must act over long periods of time makes it appear highly unlikely that a single blow can have any relation to tumor origin.

About stimulation to more rapid growth and metastasis—it is true that incision into certain forms of tumor, or incision through them into healthy tissue, will cause more rapid growth and spread; but it is worth emphasis that incision and contusion are by no means comparable. Experimental evidence has shown that mechanical crushing or contusion of tumors is as likely to be followed by regression as by increased growth.

BELIEVE-IT-OR-NOTS IN UROLOGY*

By Wirt B. Dakin, M.D.
Los Angeles

Discussion *by Robert V. Day, M. D., Los Angeles; Carl Rusche, M. D., Hollywood; Edward W. Beach, M. D., Sacramento.*

WHILE trying to deliver a large hypernephroma, its attachment suddenly gave away, and the large kidney tumor rolled off onto the floor and, after several bounces, came to a halt in the supply room. Doctor Ballenger says, "We dodged, and expected to see a fountain of blood, but we have yet to see the blood. There was an uneventful recovery."—*Edgar G. Ballenger,* Atlanta.

* * *

A girl, aged fourteen, had a ureter inserted in the fibers of the vesical sphincter, causing pyoureter and pyonephrosis, which had formerly been diagnosed as pyelonephritis. Voided specimens contained pus, whereas catheter samples were always without pus. Explanation: Pus got out of the aberrant ureter only while the vesical sphincter was relaxed during urination. — *Charles R. B. Crompton,* Toronto.

* * *

A patient, aged seventy-two, sought relief from mild indigestion. Abdominal palpation revealed a large, hard tumor on each side of the abdomen. Routine gastro-intestinal series showed perfect casts of the pelvis and calices of each kidney from extensive calculus formation.—*Archie L. Dean, Jr.,* New York.

* * *

This contributor states that, of all classes of people, musicians are the most susceptible to urinary calculi. He believes that this is undoubtedly due to the fact that they avoid drinking water before working hours, so as to keep the bladder empty.—*Ralph L. Dourmashkin,* New York.

Eighteen days after a nephrotomy for kidney abscess, the entire kidney came out through the wound: autonephrectomy. — *Wilbur H. Haines,* Philadelphia.

* * *

For a year and a half, a patient had pain in the right kidney region, accompanied by chills, fevers, and pus in the urine. He had been operated at the beginning of the symptoms for appendicitis. Two days later the symptoms returned, and a diagnosis of renal stone was made; the stone was thought to have passed, but the symptoms persisted. A diagnosis of pyelitis was made by another physician, and then the patient came into the hands of the contributor of this unusual case. Briefly, an examination revealed a kidney almost functionless on the affected side, with a marked hydronephrosis. At the nephrectomy, unusual difficulty was encountered in severing the ureter, and much to the amazement of the surgeon, a Garceau catheter was found to have been lost by someone, and the cause of the patient's illness was discovered.—*Nathan G. Hale,* Sacramento.

* * *

A traumatic rupture of a solitary kidney was treated successfully without operation. Later studies revealed that it was the only kidney.—*Augustus Harris,* Brooklyn.

* * *

A patient had a kidney stone with a wooden toothpick as a nucleus. He stated that he often chewed toothpicks, and the doctor believes that it may have sloughed through from the bowel.—*Herbert H. Howard,* Boston.

* * *

Anuria, after a hysterectomy, was treated with diuretics for four days, but no urine. Cystoscopy, even with indigo carmin, failed to reveal any ureters. There were no signs of uremia, but on the twelfth day, when the surgeon was about to interfere operatively, and when he was undoubtedly about crazy, one more diuretic was tried, namely, salyrgan. That night, 4,000 cubic centimeters of urine passed. Believe-It-Or-Not, the patient was at no time very uncomfortable.—*Michele V. Iovine,* New York.

* * *

New stones formed, with severe colic, three months after operation. They were again removed and in two weeks there was another severe renal colic, and the x-ray showed new calculi forming. Two months later, five different shadows in the pelvis were seen on the x-ray plate, and two in the lower calyx. Three months later, almost six months from the last operation, several additional calculi were found on the x-ray plate. From then on, a series of x-ray examinations revealed the astonishing fact that the patient was forming *a calculus a week.* The kidney function was good, there was a tendency to fusion of the calculi, no further colic, and additional surgery was deemed inadvisable until later, when a nephrectomy would undoubtedly be necessary.—*Joseph A. Lazarus,* New York.

* Title used by special permission of Robert Ripley.

The author is indebted for each anecdote to the doctor whose name follows each paragraph.

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X-ray showed an apparent stone shadow, which indicated operation. The operation was twice deferred, and the cause of the x-ray shadow was found to be a nonpigmented mole.—*Gordan F. McKim and Parke G. Smith,* Cincinnati.

* * *

A woman simulated a kidney colic and claimed to have passed a stone. She carried her own calculi; they were pieces of brick, fusiform in shape. Believe-It-Or-Not, examination revealed that she actually had a stone in each kidney pelvis.—*Nelse F. Ockerblad,* Kansas City.

* * *

A patient passed a giant ureteral calculus, nearly two inches long and one inch in diameter, weighing six and one-quarter grams. The process evidently consumed several years, and the patient had no morphin or cystoscopic treatments to help him. The stone was removed from the bladder by a cystotomy, and the patient apparently was none the worse for the experience.—*W. T. Briggs,* Lexington, Kentucky.

* * *

The severing of a ureter during hysterectomy was not recognized at the time of operation. Extravasation resulted, with infection. The ureteral plight was diagnosed with retrograde injection of opaque solutions into the ureteral orifice. The extravasation was drained by lumbar incision, but nephrectomy was impossible because of the patient's poor condition. But, Believe-It-Or-Not, the patient recovered completely, and later cystoscopic study revealed spontaneous anastomosis of the ureter.—*Ralph L. Dourmashkin,* New York.

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A patient had a large ureteral stone with colics for three years. She refused to let anyone in America operate on her. Finally, she traveled to Berlin to see Israel, but, on the cart going into the operating room, she passed the stone.—*William G. Exton,* New York.

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A prostatic, aged one hundred and one, upon being brought to the operating room, seemed to be much worried and quite uneasy. Upon being questioned, he stated he was upset that morning and wished to defer the operation. He was disturbed about his "boy," he said; he had just received word that he was ill with pneumonia. The urologist asked, "How old is your boy?" and the patient answered, "Eighty years old."—*A. E. Goldstein,* Baltimore, Maryland.

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A patient with symptoms, supposedly of appendicitis, upon being cystoscoped, revealed a date-sized stone protruding from the *left*—not the right—ureteral orifice. Stone removal cured the appendicitis.—*Julius W. Kleinbochl,* Milwaukee.

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A man with a ureteral calculus had a ureteral catheter passed, left in place a short time, and, upon withdrawal, the ureter was lubricated with oil. The patient was told to report to the office in a week. He did, and while telling the doctor he had been without symptoms, he was voiding in three glasses. The patient's stone passed in the third glass and he has always believed that the doctor loaded the glass.—*Sidney Olsen,* San Francisco.

* * *

A girl with typical appendicitis symptoms for four months had urine containing a few pus cells. The right ureter was investigated, and found to have a stricture with a hydronephrosis. With dilatation, all symptoms disappeared. — *William E. Stevens,* San Francisco.

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A bladder tumor looked cystoscopically like a gumma. A Wassermann was four plus positive. Luetic treatment was advised, and the bladder growth was to be observed from time to time. One month later, an intestinal obstruction developed; laparotomy revealed the ileum attached to the bladder. In freeing the mass, an abscess was opened, which contained a gauze sponge that must have been left there thirteen years before. The abscess communicated with the bladder. Death followed five days later. The bladder tumor was really a granuloma.—*James F. Balch,* Indianapolis.

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A man, aged thirty-five, had had urinary difficulty for over a year, and for six months had been obliged to use a catheter. There was always intense pain before and during an attempt to void. His previous examinations by several doctors had included urethroscopic and cystoscopic observation, and the case puzzled everyone. Finally, additional consideration included a Wassermann. This was positive, and he was placed immediately on intensive treatment. He began to feel better the same day; in four days he urinated normally, and has had no further difficulty.—*Wirt B. Dakin,* Los Angeles.

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Cystoscopy revealed a large stone in the vault of the bladder suspended from a suture. It somewhat resembled a swinging ceiling lamp.—*Ralph L. Dourmashkin,* New York.

* * *

A patient with incontinence for twelve years refused to wear a urinal, and had used a wooden screw in the external urethral orifice. This orifice was thick, and threaded to fit the wooden plug.—*William G. Exton,* New York.

* * *

During a litholapaxy, a Ravich instrument jammed, and the operator was obliged to do a cystotomy to remove not only the stone, but the instrument as well.—*Abraham G. Fleischman,* Des Moines.

* * *

A woman had been treated for thirteen years by a physician, and with home remedies. Finally, ad-

mittance to the hospital revealed that she could not be catheterized. Diagnosis: A calculus the size of a fetal head, filling the entire bladder.—*C. W. Louis Hacker,* Albany.

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A two and one-half pound bladder stone was removed suprapubically.—*H. Fay H. Jones,* Little Rock.

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A woman of sixty-five had had five unsuccessful operations to close a vesicovaginal fistula. She entered the hospital with severe pain in the left abdomen. She had a large stag-horn calculus in the left kidney, and voided all urine through the fistula. She refused any operative interference. One year later she reëntered the hospital with dysuria and pain in the bladder. She had not passed any urine through the fistula in several months. Cystoscopic examination revealed a collar-button calculus in the fistula, which closed it quite effectually. A small loose calculus was removed from the bladder. She appears from time to time for removal of small loose calculi. —*Louis Orr,* Orlando, Florida.

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A gauze sponge, overlooked during a salpingectomy, sloughed into the bowel and thence into the bladder. It was removed cystoscopically, and catheter drainage was employed for two weeks, with a cure. At first, fecal matter passed through the catheter.—*C. H. deT. Shivers,* Atlantic City.

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A douche nozzle, six inches long and one-half inch in diameter, was removed from a woman's bladder. The lady insisted that she had swallowed it.—*Frederick H. Cole,* Detroit.

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A patient with a large prostate had a foreign body in the bladder. X-ray was negative, but cystoscopy revealed some sort of a foreign body encrusted with lime salts. Cystotomy was performed, and the body was found to be a piece of the illustrated section of a newspaper. Upon unfolding the paper and brushing off the salts, the picture of a beautiful nude woman was revealed.—*Ernest G. Mark,* Kansas City.

* * *

A porcupine quill was evacuated from the bladder during an irrigation. The University of California Biological Laboratory stated that it was not only a porcupine quill, but one from the tail of the beast, and submitted two quills to prove the assertion. The patient explained that while out for a walk with her dog, he had engaged in a battle with a porcupine, and in her endeavor to separate the animals, she had received several quills in her leg.—*Albert M. Meads,* Oakland.

* * *

A husband, in endeavoring to take his wife's temperature per vagina, lost the thermometer in the bladder. The doctor cystoscoping the case, because of the favorable position of the thermometer, was able to read the temperature through the cystoscope. When this was observed, the doctor said to the husband, "Since you are so damned anxious to know what this girl's temperature is, I can tell you. It is 99.6 degrees." This is a new method of taking temperature—cystoscopically. Believe-It-Or-Not.—*H. W. Scott,* Fort Dodge, Iowa.

* * *

A stone containing a gold watch chain was removed from the bladder. The case was diagnosed cystoscopically as a vesical calculus, and roentgenologically as a stone containing a watch chain as a nucleus.—*Fedor L. Senger,* Brooklyn.

* * *

A woman sat on the porch darning socks. She put the needle into her mouth to get some more thread. Her sister made a funny remark, she opened her mouth to laugh, and swallowed the needle. For months she had severe pains in her stomach, and then only occasional pains in various parts of the abdomen. Seven years later she began to have frequent and painful urination. I passed a cystoscope, saw the needle sticking into the bladder, caught it with forceps and removed it through the urethra, with complete relief of pain.—*Hugh H. Young,* Baltimore.

* * *

A patient, fifty-nine years of age, had had a celluloid ball in the scrotum for thirty-four years without symptoms. It had been placed there at the time of an orchidectomy for cosmetic purposes.—*Benjamin S. Abeshouse,* Baltimore.

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A patient who was a religious fanatic, castrated himself with a pocket knife. He nearly bled to death before the doctor arrived and ligated the vessels. The patient justified his act with a well-known quotation from the Bible.—*John E. Hall,* Miami.

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A new etiological factor in nonspecific urethritis: a patient tried passing an icicle in lieu of a sound.—*James B. Cross,* Buffalo.

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A man, aged sixty-two, had had very tight anterior urethral strictures for years. Dilatations had become so painful, and results so unsatisfactory, that in desperation he amputated his scrotum and penis with a razor. Bleeding was controlled by an ordinary piece of cloth. Three days later, when the doctor first saw the patient, his condition was good. Since the operation he had voided without difficulty through the perineum. He appeared to be normal mentally, and explained that so long as he was impotent anyway, the operation seemed to be the best way out.—*Alexander H. Peacock,* Seattle.

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A traumatic urethrorectal fistula was discovered at cystoscopy. Treatment, expectant; result, cured. —*A. G. Rytina,* Baltimore.

Years ago, an organ grinder in Barnum and Bailey's circus consulted the doctor because of a penile ulcer. The patient explained that, because of his occupation, he had been unable to carry out the proper treatment. At his own special request, he was allowed to remove the adhesive plaster and several yards of bandage. Before completing the job, bandage, penis, and all came away. He looked pitifully at the lower part of his abdomen, and all he said was, "It's too bad, isn't it?"—*Edgar G. Ballenger,* Atlanta.

* * *

A patient with severe pain in the right side had some urinary disturbance. X-ray showed a dense shadow about the line of the pelvic right ureter. Ureteral catheter passed in contact with the shadow, which was denser than the usual urinary stone, and of unusual shape. Believe-It-Or-Not, the operation revealed a dermoid cyst of the right ovary, containing one tooth, fully formed except for the roots.—*R. Campbell Begg,* Wellington, N. Z.

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A papilloma of the skin caused a shadow on the x-ray plate to be erroneously diagnosed as renal calculus.—*William R. Delzell,* New York.

* * *

A dermoid cyst was removed from behind and slightly above the bladder. It had cast a shadow on the x-ray plate, and was thereby very nearly mistaken for a vesical calculus.—*William S. Ehrich,* Evansville, Indiana.

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An aneurysm of the internal iliac artery was very nearly opened by mistake for a distended bladder.—*A. W. Hunter,* Vancouver.

* * *

John, aged seventy, had a prostatic resection and left the hospital on the sixth day, returning to his hotel. Not having heard from the patient, and being somewhat concerned about him, the doctor called at his rooms the next day, only to find a strange woman in bed with him. John is now treating for gonorrhea, and seems proud of the fact that he was capable of acquiring it under such adverse circumstances.—*W. Ray Jones,* Seattle.

* * *

Doctor Kearns reports what he believes to be an autoprostatectomy. Rectal examination revealed an enlarged prostate. There were toxic symptoms of diabetes and two quarts of retention. Catheterization and insulin therapy were instituted at home. There was an abscess of the epididymis with evacuation of nearly a quart of pus. Two weeks later there was acute prostatitis, high fever, chills, and intense perineal pain, but the patient continually refused hospitalization. After eight days of this, there was a spontaneous rupture of the abscess into the bladder, and voiding of large amounts of pus, followed by relief. He was observed during the next five years, with no urinary symptoms; the prostate was small and firm. He died at the end of five years from diabetic coma.—*Walter M. Kearns,* Milwaukee.

* * *

Doctor Player reports an unbelievable expense from an industrial accident case. A crushing injury resulted in, among other things, paraplegia and loss of both anal and vesical control, necessitating retention catheters. This condition existed for fifteen years, until the patient died of a pyonephrosis. Believe-It-Or-Not, his hospital expense was almost $25,000; nursing expense, nearly $15,000; and doctor bills, nearly $4,000: a grand total of over $43,000.—*Lionel O. Player,* San Francisco.

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Doctor Pomeroy once had a patient by the name of O. Bills, and, Believe-It-Or-Not, he never paid one.—*Edward S. Pomeroy,* Salt Lake City.

* * *

An old negro with carcinoma of the testicle was advised operation, but refused. After listening to possibilities and probabilities, he scratched his head and said, "Boss, does Ah git you right—if Ah isn't operated, dis ole nigger is goin' to die, and if Ah is operated, Ah, don' live much longer nohow?" Upon being told that this was about the case, he replied, "Well, let's jes' leave 'em on then, for looks' sake."—*Jesse U. Reaves,* Mobile, Alabama.

* * *

A woman with urinary symptoms showed a wire hairpin in her bladder with a plain x-ray. Cystoscopy was negative. A second x-ray film showed the pin in the same position. Vaginal and rectal examination was negative. Explanation: The cassette used with the first two x-rays had a hairpin stuck on some adhesive cement. With the third film, a different cassette was employed.—*Clarence C. Saelhof,* Chicago.

* * *

A woman with a marked degree of frequency, all of whose urological examinations were negative, was relieved in a most unusual way. Noticing in a medical journal an article by an eye specialist, who claimed he had relieved many cases of frequency by refracting the patient's eyes, Doctor Sargeant thought he would try it on his patient. Only a moderately defective vision was found, but she obtained relief. He would have her leave her glasses off for a few days, and the frequency would always return.—*James C. Sargeant,* Milwaukee.

* * *

An imperforate hymen in a girl, age thirteen, caused a retention of twenty-five and one-half ounces of menstrual fluid, and this, in turn, symptoms of a kidney or ureteral condition. Cystoscopy and x-ray examination demonstrated pressure on the left ureter, with a temporary hydroureter. A general surgeon decided that it was a pyonephrosis, and advised that the left kidney should be drained for five or six weeks, and then a secondary nephrectomy performed.—*Parke G. Smith,* Cincinnati.

A man, eighty years of age, with urinary incontinence for several years before and after a prostatectomy, was cured by doses of whole pituitary gland extract and mixed treatment tablets. His blood and spinal fluid Wassermann were negative.—*Paul R. Stalnaker,* Houston, Texas.

* * *

A man with paralysis agitans, eighty-six years old, and weighing eighty-seven pounds, had a thirty-six ounce prostate removed suprapubically. He had catheterized himself for twenty-five years. —*George W. Stark,* Syracuse, New York.

* * *

Because of loss of weight, vomiting, and a palpable mass in the kidney region, a diagnosis of carcinoma of the kidney was made. Urological examination was negative. Later, after a difficult defecation, a strip of gauze protruded from the rectum. This was removed, and found to be fifty-two inches long and eighteen inches wide. It had been overlooked at a gall-bladder operation six months previously. The patient recovered.—*E. O. Swartz,* Cincinnati.

* * *

A blacksmith, ninety years of age, who had learned his trade at the age of eleven, and who did not retire until he was eighty-seven, attributed much of his good health to the use of tobacco: he had chewed since he was four years of age, and had smoked continually since he was a young man. For thirty-five years, he had catheterized himself three to seven times daily—approximately sixty thousand times—until suddenly one day, a five-inch piece of catheter broke off in his bladder. His technique was also interesting: he applied lubricating jelly with his unwashed hand, and *usually* washed the catheter in soap and water after using it. He had only a mild degree of cystitis, was very active, and in excellent health.—*Howard L. Tolson,* Cumberland, Maryland.

* * *

A child, four years old, presented a glans penis which was severed from the penis except for a fine cord which contained the blood supply. An unintelligent mother explained that one year previously she had fastened a hairpin on the foreskin in an attempt to do a circumcision. The surface of the glans and penis were healed as though a clean incision had been made. The doctor stitched the glans back in place, reëstablished the urethra, and obtained good results.—*William P. Willard,* San Francisco.

* * *

A patient complained of frequent and painful urination. X-ray showed three shadows in the region of the bladder, one of which contained a pin. Cystoscopy showed but one stone, which was crushed and evacuated. A lateral cystogram located the other two shadows in the rectum. Operation revealed a fistula between the lumen of the appendix and the extraperitoneal cavity on the right side of the bladder, in which was the stone containing the pin. The other stone was in the tip of the appendix and it was formed of the same salts. This is apparently the only authentic case of a urinary calculus within the lumen of the intestinal tract.—*Burnett Wright,* Los Angeles.

523 West Sixth Street.

DISCUSSION

Robert V. Day, M.D. (1911 Wilshire Boulevard, Los Angeles).—Doctor Dakin has certainly gone to a lot of pains, and expended a great deal of energy in assembling these interesting and bizarre case reports. All are unique and instructive as well, and are attested by outstanding authorities, so there can be no doubt of their authenticity. The paper is so trite, yet complete, that there is little left for a discussant to add, except to highly commend him for his presentation.

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Carl Rusche, M.D. (906 Taft Building, Hollywood).—One is immediately impressed with the amount of time and energy expended in accumulating such a large number of unusual case reports. I do not know of any place in the literature where such a list of unique cases can be found. I wish to compliment Doctor Dakin for his medical originality, and trust that he will continue to publish this unique accumulation of material.

May I solicit others to contribute their unusual urologic cases in order that the Doctor Dakin "column" may be perpetuated.

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Edward W. Beach, M.D. (Medico-Dental Building, Sacramento).—Dr. Wirt Dakin deserves the plaudits of the profession for having created and developed his original idea of "Believe-It-or-Not in Urology" items, after the manner of Ripley and with the latter's full permission. This interesting feature of the urological program, which was inaugurated several years ago at the annual meeting of the American Urological Association, has now become international in scope, and its yearly advent is eagerly anticipated by many of the members.

Doctor Dakin painstakingly collects his data from near and far, and then arranges the material in such a way as to relieve the tedium contingent upon the presentation of a large number of very scientific essays in a very brief period of time, as is the custom of conventions. By reason of these "Believe-It-or-Nots in Urology" a considerable degree of warmth, sparkle, zest, mirth, intimacy, and general good feeling is imparted to an otherwise stilted, formal, and coldly scientific atmosphere. The case presentations are, likewise, both educational and instructive.

Perhaps another reason for the popularity of "Believe-It-or-Not in Urology" items is that they often treat directly of the human equation in the medical problem. Thereby they touch a responsive chord in the breast of every physician, for above all others by nature of his calling, the physician must, like Abou ben Adhem, love his fellow men. Anything, therefore, which deals with the human factors—the frailties, the oddities, the perversities, and the general incomprehensibility of human nature in its relation to actual problems encountered in the practice of medicine—finds instant appeal to the physician everywhere. After all, the physician's problems are fundamentally the same, regardless of geographic location.

Perhaps no contribution better illustrates the truth of the celebrated Hippocratic aphorism, "Life is short, and the art long; the occasion fleeting; experience fallacious, and judgment difficult." Moreover, these compilations of Doctor Dakin's but serve to illustrate the aptitude of Whetham's little poem, to which each physician with due humility must subscribe:

"But beyond the bright searchlights of science,
Out of sight of the windows of sense,
Old riddles still bid us defiance,
Old questions of Why and of Whence."

Let us hope Doctor Dakin will continue with this excellent work.

THE LURE OF MEDICAL HISTORY†

PURKINJE'S PIONEER SELF-EXPERIMENTS IN PSYCHOPHARMACOLOGY*

By P. J. Hanzlik, M.D.
San Francisco

PART II**

THUS Purkinje's unusually clear description and correct interpretation of these interesting side actions of digitalis, over a century ago, are strictly in accordance with those of the present day and will probably hold for all time. Today records of these side actions on vision in the clinical use of digitalis are a commonplace, but their relationship to the drug's actions was not suspected or recognized until 1925, when they were rediscovered and brought to the attention of the medical profession. While these side actions are important clinically as a warning of beginning toxicity from digitalis, the so-called "minor toxicity symptoms," for Purkinje they were essentially manifestations of a disturbed physiology. He proved by his experiments that digitalis did not create directly those flickerings in the eye, but rather indirectly by mediation through some other physiological function; in this case nausea and emesis. For drugs do not create new physiological functions; they only affect those existing. Thus, Purkinje was always intrigued by other means or possibilities of probing deeper into an understanding of physiological function. He was probably well aware that he was laying down at the same time a more secure foundation for pharmacology. His drug experiments were not mere by-products of physiology. This seems to be indicated in his most interesting paper entitled, "Einige Beiträge zur physiologischen Pharmacologie," published in 1829.[7] It deals with interesting effects from drug combinations, which I may discuss next.

SELF-EXPERIMENTS WITH DRUG COMBINATIONS

In his paper on physiological pharmacology, Purkinje has declared his preference for self-experiments in pharmacology. His object is to reveal all actions, especially the subjective, which cannot be tested on animals. First, he determined results with some individual drugs which entered into certain combinations.

Camphor.—After taking 6 grains (0.4 gram) of gum camphor by mouth, Purkinje experienced only an oppressive burning sensation in the stomach, but 12 grains (0.8 gram) caused him to remain in bed. About fifteen minutes after the initial gastric irritation, he felt a sensation of warmth of the entire skin, and nerve irritation was marked, especially in muscle and skin nerves, with prickling of skin. Sensitivity to external environment was decreased somewhat, with a sensation of hairiness. Respiration was unusually easy and free. His mental activity was increased considerably, so that thinking seemed to be clearer. A camphor euphoria was experienced, spiritual thoughts and consciousness being increased. The leading spiritual thought was that man in his being was a superman and his calling was the liberation of his brothers.

His whole life was laid before him without a relationship to his presence, which he believed completely overlooked. This state lasted one and one-half hours, and then was lost in ordinary thoughts and duties without the slightest feeling of anxiety. Afterward, his head was not the least affected, which, however, is the case after other kinds of euphoria or sprees. This experiment was not repeated, but he thought it would be interesting and important to know if a state of exalted feeling occurred in different individuals. Probably the exalted state would soon be lost. To him it seemed important that this experience was not unlike some forms of insanity. The action disappeared rapidly just like ether, nitrous oxid and other volatile agents. It was remarkable to him that no trace of action remained afterward. Excretion of camphor occurred in the lungs and sweat, and a trace in urine. The blood apparently took up the drug and brought it to the brain and nerves. He suggested that the external temperature may cause a significant difference in the action of camphor when the skin and pulmonary volatilization is retarded.

In a final experiment with camphor, Purkinje took at once two scruples (40 grains, or 2.6 grams) with the same subjective experiences. There was also increased muscular activity, movements being easily executed, but the muscle power was unchanged. He was unable to concentrate while writing. No religious exaltation was felt as in the first experiment. He lost consciousness of his personality, felt exhausted, and required orientation with surroundings, but all this was lost in a stream of peculiar thoughts. The sensations were like those of a drunkard who calls himself names, mutters, and has moments of normal behavior. He states that he expectorated camphor in saliva and sputum. The subjective sensations increased to the point of emesis which, however, did not materialize. An hour appeared an inordinately long time, as in a dream. A similar experience was observed by Kant in his ripe old age, when an hour's walk seemed to be a long journey.

Opium Nostras.—Purkinje tested this opium because it was reported to be one-fifth as strong as the oriental variety. In a small quantity it acted to prevent the stupor of wine. He suggested that perhaps this action explained its effectiveness in delirium tremens.

Belladonna.—Half an hour after Purkinje took twenty drops of an extract of belladonna on sugar, there was dryness of the nose and mouth. There was a feeling of anxiety in the precordial region and sometimes the pulse was full. Contractions were felt in the urinary passages, and urine was scanty. Beef soup tasted sour, and afterward there

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

* Sigma Xi address, University of Nebraska, Lincoln, Nebraska, February 16, 1938.

From the Department of Pharmacology, Stanford University School of Medicine, San Francisco.

** Part I of this paper was printed in California and Western Medicine, July, 1938, on page 52.

was a peculiar taste of senega. This was not due to the food eaten, because other dietary articles gave the same sensations. Dry bread tasted peculiar when chewed. These peculiar oral sensations were due to absence of saliva and mucus, their presence contributing normal sensations. All actions of belladonna were due to the decreased secretions.

A hypochondriac individual, whom Purkinje knew for some time, experienced the same sensations as did Purkinje after the belladonna. So he tried treatment of this state with homeopathic doses of belladonna and thought he observed a beneficial action in a way which, however, could have an explanation in the variability of the disease.

Stramonium.—This drug gave similar effects to those of belladonna, with this difference, that an alcoholic extract of the seeds caused depression, that is, a narcotic action. This he had never observed with belladonna, but both drugs caused dilatation of the pupils. Today stramonium is used in excitatory states, like Parkinsonian disease and the like.

Turpentine, With and Without Alcohol.—First, Purkinje took one dram (60 minims, or 4 cubic centimeters) of turpentine on sugar every morning with unpleasant sensations in the alimentary tract, but he could sleep off the effects with one hour's sleep daily. He slept better both day and night, there being quieter and calmer sleep after turpentine. He thought it might be used as a hypnotic in certain cases.

He felt an unusual experience when he took a glass of wine with the turpentine, which was not felt after wine alone. An unusual euphoria occurred, due not to a specific action, *i. e.*, previous depression of the central nervous system by the turpentine, and the action lasted several days. With pure turpentine a dizziness occurred, but not after taking a mixture of alcohol and ten drops of turpentine. He thought this mixture might be suited to some individuals under treatment (alcoholic intoxication?).

Narcotic Action of Oil of Nutmeg.—Purkinje's results with turpentine suggested trials with this volatile oil. One morning he ate a nutmeg with sugar, which was not unpleasant; yet he felt a weariness and a sense of depression which lasted a whole day, though not disturbing mentally. But he noticed, after taking a small glass of table wine, that the nutmeg affected him very much.

One afternoon, after dinner, Purkinje ate three nutmegs. The action came on rapidly. There was marked sleepiness with pleasant dreams, which were disturbed occasionally by some restlessness. Finally, he laid down on a sofa to sleep. He states: "At half-past six (in October), when it was almost dark, I woke up in order to go to the Royal Theater in Brüder Street (Berlin) where I lived. The distance was long, but this time I thought it had *no end*. My movements appeared entirely adequate, but were lost momentarily in dream pictures, from which I had to extricate myself with considerable force in order to keep on walking. My feet did their duty, and, since I had to stick to a straight road, there was no danger of going astray. I went forward in this dream, for, if I attempted to orient myself, I could not even recognize the cross streets. Time seemed long. I got to the opposite side of the place where I was going. During this time dreams and physical activity battled one another. The return journey was good, and I slept well that night and next day." *But the wine acted on him more powerfully than usual for several days.*

In his next experiment, Purkinje rubbed up two drams (120 grains, or 8 grams) of nutmegs with pure brandy and drank the extract; the action was different. Instead of a quiet narcosis, there was muscular restlessness and dizziness. This was due to an internal action of the nutmeg in this combined form. This oil, turpentine, and all volatile oils act on the cerebrum and cerebellum. Combined with alcohol they affect the motor functions more, so that the actions of aqueous and alcoholic mixtures should be different. Pharmacodynamically, the action is less chemical than on the organism, *where an agent increases the disposition to the action of another drug.* He regretted that he could not investigate the effects of coffee or tea on different drugs, because his scientific interests became diverted. But Purkinje had no doubt that observations in this field would throw light on many problems. Equally important was a cautious attitude which he expressed. He said that the few experiments he could make should be repeated on a large number of individuals so as to give a correct general result; this, in order to establish subjective results as soundly as the objective, and not leave them merely empirical.

As regards Purkinje's self-experiments with nutmeg, essentially the same symptoms in the early stages of nutmeg poisoning were described seventy-eight years later by the late Professor Cushny,[8] who was apparently unaware of Purkinje's description. Two years after Cushny's report, Dale,[9] who reviewed reports of clinical actions and poisoning from oil of nutmeg, and undertook experiments with the oil on cats without success, also did not refer to Purkinje's self-experiments. In his Alpha Omega Alpha Lecture on Leeuwenhoek in 1933, before the California-Stanford chapters, Professor A. W. Meyer, professor of anatomy at Stanford, discussed certain pharmacological experiments with nutmeg on mites by this microscopist; he also referred to them in a recent article.[14] Mites were exposed to pieces of nutmeg in a glass tube; these would approach the nutmeg and then rebound as they came closer. If they remained very close, they died (narcosis and paralysis?). This was about 1676, so that Leeuwenhoek preceded by something like 153 years Purkinje's self-experiments with nutmeg.

COMMENT

To return to Purkinje's results with drug combinations, he seems to have been the first one to recognize that drugs can affect each other's actions. In other words, Purkinje discovered the allergic state. More than that, he demonstrated it on himself. He actually showed a sensitization on himself to two drugs as the result of taking another drug. That is, an habitual glass of wine (weak

alcoholic beverage), without action itself, increased his reactions to turpentine and to nutmeg. This can be regarded as a case of potentiation of action on drugs by another drug. Besides making a clear demonstration of allergy, Purkinje also suggested the correct explanation of the phenomenon. He concluded that these drugs did not react with each other directly, and thus did not alter their actions in a chemical sense, but that the changes were produced by some effects on physiological functions. What apparently puzzled him was that a drug whose action was no longer expressed could still influence the actions of other drugs so markedly. However, this puzzle is still unsolved today. Nevertheless, it must be granted that Purkinje demonstrated long ago that conditions influence the actions of drugs, something now universally recognized, but he is never credited with this discovery.

EXPERIMENTS ON CILIA

Before closing, I cannot forego the mention of Purkinje's original pharmacological experiments on cilia in 1835.[10] These were done with his favorite pupil, Valentin. In this work there are presented a table and discussion of results with fifty-five chemical agents and drugs which acted on ciliary motion. Among other phenomena, Purkinje and Valentin recognized that organic acids (acetic and others) affected cilia more quickly and readily than inorganic acids (HCl and others). Eighty years later Olmsted and MacArthur[11] described exactly the same differences; in fact, used the same acids on frog cilia without apparently being aware of Purkinje's and Valentin's experiments. The only difference was in the method of expressing the strength of the acids, *i. e.,* use of p_H by Olmsted and MacArthur. Purkinje made this clever deduction: Since hydrocyanic acid and strychnin do not poison cilia, these structures do not belong to the central nervous system. Another deduction in a similar vein, but having nothing to do with cilia, was as follows: Frogs killed with narcotics are not entirely dead, since the muscles and nerves of their bodies respond to direct stimuli. This was really clever for those exclusively anatomical days. As a result, Purkinje was called a "physiological anatomist."

IN CONCLUSION

It can be said of Purkinje what has been said before by others—the genius of the great master, Purkinje, has remained undeservedly obscure. And what do you suppose this self-effacing supermaster of physiology is reported to have said on New Year's Day, 1869, the year of his death (age, eighty-two years)?

"I have indeed discovered various things, but, as for immortality of my name, this should not be taken literally. A hundred years hence perhaps only a few will know who Purkinje was. But that makes no difference. For indeed we do not know who discovered the plow, and yet it serves all humanity. The cause remains the same, but not the name—and that is the important thing" (Hykes[12]).

Sacramento and Webster Streets.

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CLINICAL NOTES AND CASE REPORTS

PSEUDO-PROPTOSIS FROM SUBCONJUNCTIVAL TUMORS

By Howard E. Clark, M.D.
Monterey

MUCH has been written about false exophthalmos due to orbital tumors and its diagnostic complications. Here is a case of subconjunctival lipomas with a desiccating keratitis.

REPORT OF CASE

Mr. Ira B., colored, age fifty-one, was referred to the Monterey County Hospital on November 1, 1937, with a diagnosis of bilateral tumors of the lachrymal glands. He complained of failing vision in the right eye, with excessive weeping of several weeks' duration. The patient stated that the eyes had always been prominent, but that the swellings on the upper and outer portions of the eyeballs had been noticeable since 1918.

There had been no symptoms referable to the eyes until the present complaint. No severe illnesses or childhood diseases were remembered. Vision had always been good and the eyes had never been examined. Venereal infection was denied.

Examination:

Vision: Right, 20/65. Jaeger iii at 15 inches. Left, 20/20. Jaeger ii at 15 inches.

There was a marked proptosis in both eyes, slightly more on the right. The lids were very loosely applied to the globes. Lachrymal glands were easily seen projecting slightly below the orbital rim. Both eyes showed a yellow-



Fig. 1.—Subconjunctival tumor in right and left eyes.

ish subconjunctival mass about the size and shape of a forefinger tip extending downward and medially, from the lower margin of the lachrymal glands to a point one and one-half centimeters from the limbus. The upper and outer margins were not visible, apparently extending back into the orbit. The right cornea was roughened and stained slightly with fluorescin. The fields were normal. The fundi were fairly well seen and were normal.

The Hertl exophthalmometer showed: R. 22, L. 20.

Blood and urine negative.

Basal metabolism: Plus 23.

Pulse: 70, regular. B. P. 124/72.

Course.—November 23, 1937: The right tumor mass was dissected out without difficulty. The mass was a comparatively nonvascular, yellowish tumor, one and one-half centimeters wide and two centimeters long. It extended a narrow pedicle into the orbit. Biopsy showed fatty tissue only.

December 4, 1937: The left was operated upon with similar findings.

December 14, 1937: Both conjunctival wounds were well healed. The weeping had stopped and the patient was comfortable. The corneae were clear, showing no staining reaction with fluorescin.

February 3, 1938: Vision—Right, 20/30; left, 20/20. Distance vision not improved with correction.

With the exophthalmometer the right eye showed 22 mm., the left 20. The patient was delighted with the improvement in his appearance.

576 Hartnell Street.

HYPEREMESIS GRAVIDARUM: NOTES ON TREATMENT

By William Buster McGee, M.D.
San Diego

THE treatment of vomiting of pregnancy has changed very little in the past few years, in spite of the fact that there have been many advances in our knowledge of the vitamin and hormone deficiencies. Probably vitamins B1 and G are involved more than any of the others. As a whole, the use of female sex hormones has been very disappointing, with the possible psychic effect of hypodermic injections.

We have divided hyperemesis gravidarum into four clinical groups and, depending on the severity of the case, we decide which form of treatment is to be used. No routine procedure can be successful, as each is an individual problem. The serious cases are started, for about two days, on the severe regimen, intravenous and subcutaneous fluids, with nasal tube feedings, on the third and fourth days, then fifth and sixth days on the vomiting diet, and on the seventh and eighth days a dry diet. The patient may be started on any of the four diets; and, depending on her reaction to the therapy, it may be worked either forward or backward.

I. MILD TYPE

Carbohydrate, 400; protein, 50; fat, 25.

Omit liquids one hour before and one hour after meals.

Six a. m. and midnight feedings.

Dry toast or crackers before rising.

Sweetened fruit juices between meals.

Ferrous sulphate, grains five, after meals, if anemic.

Phenobarbital, grains three-fourths, morning and evening.

II. MODERATE TYPE

Carbohydrate, 400; protein, 50; fat, 0.

Dilute HCl, fifteen drops, before meals, if gastric analysis shows low reading.

If pulse is over 90, Lugol's solution, five drops after meals.

Phenobarbital, grains three-fourths, given with liquids, three times a day.

Substitute dicalcium phosphate and A B D capsules for milk.

No coitus allowed.

Daily enema, if necessary, for constipation.

Diet for Moderate Type

1. Take solid food at 8 a. m., 12 noon, 4 p. m., and 8 p. m.
2. Take liquids at 10 a. m., 2 p. m., 6 p. m., and 10 p. m.
3. Take any medication with liquids.
4. No fat or greasy foods.
5. Solid foods:

(*a*) Stewed fruits, with plenty of sugar.

(*b*) Cooked or dry cereal, with plenty of sugar.

(*c*) Toast, crackers, corn bread, Graham muffins, whole-wheat bread, with preserves, honey, jelly, molasses.

(*d*) Lean meats, crisp bacon or ham, cheese, hard-boiled eggs; sandwich with toasted bread (no butter or mayonnaise).

(*e*) Baked, mashed or boiled potatoes, baked sweet potatoes, macaroni, spaghetti (plain), rice.

(*f*) Fresh, raw vegetables, such as lettuce, tomatoes, celery, and radishes.

(*g*) Raw fruits, such as bananas, oranges, apples, lemons, and grapefruit.

(*h*) Cooked vegetables, spinach, asparagus, peas, white onions, cauliflower, carrots, beets, corn, and beans.

(*i*) Gelatin, jello, custard, prunes, tapioca, ice cream, and fruit ices.

6. Liquids: Fruit juices (orange, lemon, pineapple, grapefruit), coco-cola, skim milk, tea, ginger ale, and water.

III. MODERATELY SEVERE TYPE

Hospitalize.

Physical and pelvic examination.

Blood count and urine examination (acetone and diacetic acid).

Darkened room and no visitors (including husband).

Absolute bed rest.

Daily enema.

Temperature, pulse, respiration, every four hours.

Measure intake and output.

Insert Levine nasal tube into the duodenum at 7 a. m., which may be removed at 10 p. m.

Make up a formula as follows:

Tube-Feeding Formula

Milk	800 cc.
Lactose	200 gm.
Eggs	4
Peptone	24 gm.
Salt	5 gm.
Cevitamic acid	50 mgm.
Cod-liver oil concentrate	20 drops
Vitamin B1 crystals	2 mgm.

One hour after the tube has been inserted start formula as a slow continuous drip. If vomiting occurs, reinsert tube and wait one hour, with the patient on right side before starting drip. Give phenobarbital, dilute HCl, or Lugol's solution, if indicated, through the tube. Maintain the fluid intake up to 3,500 cubic centimeters per day by hypodermoclysis of normal saline or Ringer's solution; or, if acetone and diacetic acid in the urine, 20 per cent glucose by intravenous drip. The glucose may be covered with insulin.

IV. SEVERE TYPE

Nothing by mouth, except small amount of cracked ice. Bed rest; temperature, pulse, respiration, every four hours. Measure intake and output. Transfusion, if hemoglobin is 70 per cent or less, sodium phenobarbital, grains four, hypodermic, then two grains every six hours until drowsy; then every eight hours for two days. Sodium bromid crystals, 75 grains in 100 cubic centimeters of starch water, as a retention enema, the first night. Give 1,000 cubic centimeters 20 per cent glucose infusion twice daily, over a period of ninety minutes. Get CO_2, urea and NaCl blood chemistry at the time of the infusion each morning; 1,000 cubic centimeters of normal saline by hypodermoclysis twice daily, alternating between subpectorally and in the thighs, always several hours, after the glucose. (Use procain wheal.) Hartman's solution may be added if acidosis or alkalosis is present. Daily urine examination for acetone and diacetic acid. Eye-grounds examination. If no improvement, interruption of the pregnancy should be considered.

233 A Street.

SULFANILAMID: A SPECIFIC FOR THE FRIEDLANDER BACILLUS

By Philip King Brown, M.D.
San Francisco

ONE case can rarely be considered the ground for drawing so definite a conclusion as the title indicates, but the history of the case makes it remarkable.

REPORT OF CASE

Miss B. K. had her tonsils removed in February, 1917, following which she developed a condition in the right lung which proved later to be an abscess. The abscess was in about the middle of the right lung field toward the back, and was considered to be in the upper part of the right lower lobe. Pleurisy developed under the right shoulder blade. Partly to relieve that pain, and because the abscess did not drain well, the use of a small pneumothorax was attempted successfully, and it was found promptly that the abscess both discharged better and there was no tendency to spread. A moderate pneumothorax was kept up until all discharge ceased, and the lung field seemed to be definitely clearing. The nature of the infecting organism was not determined.

Following the expansion of the lung there developed a slight cough and expectoration, and a lipiodol injection showed that there was a definite dilatation of the large bronchus extending from the middle of the hilus, definitely toward the back in the vicinity of the shoulder blade. The use of the lipiodol relieved the green expectoration for a considerable period of time, although it did not disappear entirely. A fresh cold would increase the amount from one to two drams a day to several ounces. On numerous occasions this was cultured, and a pure growth of Friedlander bacillus was found. In the seventeen years which followed the abscess there continued constantly to be a small amount of expectoration when the patient was quite well, which was increased decidedly following every cold, and was not relieved until lipiodol was put into the dilated bronchus. There continued to be a slight increase in the pain under the lower end of the right shoulder blade.

The patient all these years worked as a private secretary, but was constantly annoyed by the sweetish-green expectoration which showed so ready a tendency to increase with every slight cold.

In the summer of 1937, after a severe cold, she was instructed to spend two weeks at an elevation of 2,500 feet in a hot, dry locality, doing all she could with postural drainage and iodid of potash. At the end of a week no material benefit having resulted in the way of lessening the amount of expectoration, which was between two and three ounces a day, she was instructed to take sulfanilamid in the following doses: 30 grains the first day, 45 the second, and 60 the third, dropping back to 45 grains, and 30 on the fifth day. At the end of the third day there was absolutely no expectoration, and the pain in her back disappeared. She kept in touch with me, although several hundred miles away, and was instructed to continue taking small doses for a while longer.

Six months have gone by and there has been no evidence whatever of any return of the expectoration. She has had several slight colds, but has promptly taken small doses of sulfanilamid, and none of them have resulted in the productive cough.

COMMENT

The case is reported because the cultures were made by Dr. A. M. Moody, pathologist of the Saint Francis Hospital, during all this period. The result was so absolutely clean-cut that it seems to the writer worth putting on record.

We have since tried the drug once on an arrested case of tuberculosis, with a left upper thoracoplasty which had not completely stopped the productive cough. Friedlander organisms predominated in the sputum and no tubercle bacilli have been found for years. A cautious trial of sulfanilamid was made after a fresh cold which increased the amount of sputum, and again a remarkable drop in the amount resulted at once. As the tendency to the production of fibrosis is one of the characteristics of this organism, the problem presented itself as to whether the removal of one or two more ribs was a safer treatment than continuing the use of this drug. The patient in the meantime was not pressed for any decision in the matter. The newspaper publicity about sulfanilamid disturbed him, and he had no great desire to undergo further surgery.

909 Hyde Street.

NECROPSIES IN HOSPITALS IN SAN FRANCISCO*

By J. C. Geiger, M.D.
AND
Jesse L. Carr, M.D.
San Francisco

IT has been the custom for some years in certain of the large cities of the United States to survey and report the necropsies performed, together with the numbers credited to each hospital in that locality, and the percentage of permissions obtained. In order to make this information available for use in San Francisco, an effort was made at the beginning of 1937 to collect the necessary statistics with which to formulate a table presenting salient facts relating to necropsies.

* From the Department of Public Health, City and County of San Francisco.

Eighteen of the forty-five hospitals listed in the San Francisco area responded to the questionnaire, supplying information in detail for 1936, and partial information for the previous years. From the data received, the percentage of permission obtained for necropsies is shown in Table 1, together with a more detailed analysis of the data furnished for the year 1936. In that year the capacity of the reporting hospitals was 4,344 beds, and 82,758 patients were treated, and 3,989 deaths occurred. Total necropsies performed, by consent, in these hospitals were 1,331, and the number of cases referred to the coroner's office from these hospitals was 482. Of the cases referred to the coroner, the hospitals have record of forty necropsies performed at the coroner's office. The percentage of permissions obtained for the San Francisco area was 33.3 per cent in 1936, and the average in the past ten years for each of the hospitals furnishing complete data is listed in Table 2.

In computing the percentage of permission obtained for necropsies, the figure taken for the number of deaths is the actual number recorded (not including stillbirths). In one hospital no record of necropsies has been kept. Another hospital reported no facilities for performing necropsies. Two other hospitals reported insufficient data from which to evolve statistical information, and in another no necropsies were performed on consent, presumably because of racial objections. Ten hospitals reported that the pathologist spends full time (six to eight hours per day) in the pathological laboratory within the hospital. Three others reported that the pathologist spends part time (four hours or more per day) in the laboratory, while five others have no pathologist. In all of the

TABLE 1.—*Necropsy Report for San Francisco Hospitals*

Hospitals	1936 Necropsies					Percentage Permission									
	Beds*	Patients	Deaths	Permits	To Coroner's	Coroner's	1936	1935	1934	1933	1932	1931	1930	1929	1928
Children's	259	5,031	119	61			51.2	26.4	30.0	48.9	42.7	38.6	37.6	26.7	33.1
Chinese	65	532	67		2		No necropsies on consent								
Dante							No facilities for performing necropsies								
Franklin		3,840	227	20	18		8.8	11.9	2.8	8.0	2.3	1.7	1.6	1.0	
French	225	3,790	159	47	17		29.5	26.4	26.8	29.3	23.4	34.7	20.4	13.4	
Garden Nursing Home		152	42				No record of necropsies								
Mount Zion	189	3,907	206	77	12	5	37.3	49.1	51.5	49.7	46.4	42.6	36.3	24.1	23.4
St. Elizabeth's							Insufficient data								
St. Francis	354	7,038	262	31			11.8	8.1	13.9	13.7	25.0	27.6	28.4	17.3	8.1
St. Joseph's	232	7,058	226	36			15.9	17.4	17.7	21.0	22.2	19.7	21.3	25.0	28.4
St. Luke's	225	5,584	201	85			42.3	30.2	37.2	33.3	32.5	32.0	12.7	21.5	19.0
St. Mary's	325	8,822	258	67	15	15	25.9	18.5	11.3	14.7	18.1	13.9	15.8	23.2	17.4
San Francisco	1,516**	14,251	1,394	515	365		†36.9	41.5	43.0	48.2	39.4	32.1	32.9	48.3	23.6
Shriners							Insufficient data								
Southern Pacific		4,558	153	68	19		44.4	31.4	40.3	56.9	55.9	56.2	38.3	34.5	41.0
Stanford	324	9,635	259	140	14		54.0	56.1	46.1	48.9	58.1	45.5	43.9	38.5	42.4
U. C. Hospital	294	6,262	191	105	13	13	†54.9	65.7	69.9	63.3	73.0	61.2	52.1	51.8	38.5
Veterans' Administration Facility	336**	2,298	225	79	7	7	35.1	30.2	5.5	Opened September 26, 1934					

* Beds include bassinets except in those hospitals showing a double asterisk (**).
† These figures are for fiscal years beginning July, 1927.

TABLE 2.—*Shows Average Percentage Permission in the Past Ten Years for Each of the Hospitals Furnishing Complete Data.*

University of California	58.9	
Stanford-Lane	48.1	
Southern Pacific	44.3	
Mount Zion	40.0	
San Francisco	38.4	
Children's	37.3	
Veterans' Administration Facility	31.4	(2¼ years)
St. Luke's	28.9	
French	25.4	
St. Joseph's	20.9	
St. Mary's	17.6	
St. Francis	17.1	
Franklin	4.7	(8 years)

hospitals, either the pathologist or an assistant under his supervision makes each necropsy, except in rare instances, in which they are performed by certain members of the house staff. All hospitals in San Francisco, with either full or part-time pathologists, have kept permanent records which are available for inspection of gross and microscopic findings in each case. Likewise, the following hospitals report the holding of weekly pathological conferences: University of California, Stanford, San Francisco, French, and Mount Zion. In addition, the St. Francis Hospital reports conferences every two weeks; and the Garden Nursing Home, St. Joseph's, St. Luke's, St. Mary's, Children's, Chinese, Franklin, and the Southern Pacific Hospital report one conference each month.

It will be noted in Table 1 that there has been a gradually ascending necropsy percentage in San Francisco during the past nine years; and, while not shown statistically, the interest in clinico-pathological conferences and in pathological teaching has kept abreast of this statistical level.

At present a system of tabulation is instituted in the San Francisco Department of Public Health whereby such figures are available at all times.

Department of Public Health,
Civic Center.

TYPHOID SEPTICEMIA TREATED WITH SULFANILAMID

By W. E. DIEFENBACH, M.D.
AND
ANTON S. YUSKIS, M.D.
La Jolla

BUTTE and his coworkers[1] have found that the survival period of mice infected with many lethal doses of Bacillus typhosus was lengthened or they were entirely protected by the administration of sulfanilamid. It is, consequently, of interest to record the effect of this therapeutic agent upon a septicemia in man due to Bacillus typhosus.

REPORT OF CASE

History.—A. L., a white man, age twenty-one, was admitted to the hospital on January 2, 1938, complaining of chills, fever, loss of appetite, lassitude, and a mild headache. He had enjoyed excellent health until November, 1937, when he had an attack of appendicitis while in Colorado. An acute respiratory infection postponed operative intervention at that time, but an appendectomy was finally done and a stormy time followed a perforated appendix. He gradually improved, gained in weight and strength, and came to California. His convalescence was satisfactory until January 1, when he felt tired and below par.

[1] Butte, G. A. H., Parish, H. J., McLeod, M., and Stephenson, D.: Chemotherapy (Sulfanilamid) in Mice, Lancet, 1:681-684 (March), 1937.

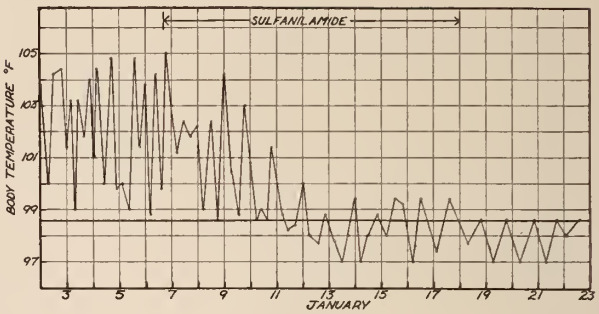


Chart 1

Examination.—The patient was well developed, fairly well nourished, pale, mentally clear, and alert. The skin was clear, no rose spots and no embolic or hemorrhagic manifestations. There was no unusual adenopathy. The temperature was 104.6 degrees; pulse 100; blood pressure, systolic 104 and diastolic 60. There were no abnormal findings in the head, neck, thorax or extremities. There was a recent scar in the right lower quadrant of the abdomen. There was no muscle spasm or no abnormal masses felt. Neither the liver edge nor spleen could be definitely palpated. There was no tenderness in either costovertebral angle. The first blood count (January 3) showed: hemoglobin, 75 per cent; red blood cells, 3,700,000; white blood cells, 6,550 with 67 per cent polymorphonuclears, 30 per cent lymphocytes, and 2 per cent monocytes. The urine showed only a faint trace of acetone. Specimens of blood were taken on January 4 for cultures.

Course.—The patient continued to have severe chills—three to four in twenty-four hours—and fever ranging from 97.8 to 105 degrees Fahrenheit for the next three days. His condition gradually became worse. On January 6 the broth culture and one poured plate gave a motile Gram-negative bacillus. Growths on Endo and Russell double sugar media were typical of Bacillus typhosus, and eliminated Bacillus coli, and Paratyphoid bacilli motility eliminated the dysentery group. Agglutination test—Antityphoid serum agglutinates, 1:2560. On January 7 we started to give him ten grains of sulfanilamid every four hours. On January 8 the temperature varied from 101.2 to 102.4 degrees Fahrenheit, without any chills. Because of a marked nausea present the next day, the dosage of sulfanilamid was cut down to one-half or five grains every four hours. That same evening he had a severe chill and the temperature rose from 98.6 to 104.2 degrees Fahrenheit. So the next morning, January 10, he was placed again on ten grains every four hours. The patient began to show a marked improvement, as his temperature dropped and the chills did not recur. At the end of a week's treatment the temperature was almost normal, rising to 98.8 degrees Fahrenheit. During the second week of treatment the patient had an afternoon temperature of only 99.4 degrees Fahrenheit, and showed a marked improvement in his general condition. The sulfanilamid was stopped on January 18. After this his temperature ranged from normal to subnormal. On January 28 the patient was dismissed with a normal temperature.

Examination of the stools and urine failed to reveal the Bacillus typhosus. Likewise, the Widal test was negative. Daily blood and urine examinations were made during the course of treatment. Roentgen examinations of the chest and abdomen were negative.

COMMENT

It was our impression that there were two possible explanations for this illness. First, that this may represent a very questionable atypical typhoid fever. Secondly, and more probable, was that the organism was present in the intestinal tract at the time of the peritonitis, and localized to form an abscess possibly in one or more retroperitoneal lymph nodes with a gradual softening and systemic invasion. There was no evidence pointing to liver abscess, subdiaphragmatic abscess, perirenal abscess, pararectal abscess, nor pyelitis.

CONCLUSIONS

Our brief experience with the use of sulfanilamid in the treatment of a typhoid septicemia leads us to believe that this drug may prove to be of value in the treatment of typhoid fever. The prompt response to treatment, the smooth clinical course, the absence of complications, and that the infection did not progress, together with a reduction in hospital expenses that is usually necessary in the treatment of this infection, have impressed us considerably.

7819 Girard Avenue.

HEMATOCOLPOS DUE TO IMPERFORATE HYMEN

By E. M. Bingham, M.D.
AND
W. J. Blevins, Jr., M.D.
Woodland

THE occurrence of hematocolpos and hematocolpometra seems sufficiently rare to justify a case report. Review of the literature shows that most of the individual cases have been reported from European countries. A complete summary of this condition was presented by Calvin and Nichamin[1] in 1936. They analyzed twenty-six cases reported in the literature, and fourteen cases available from hospital records. It is of interest to note in these cases that 62 per cent were less than fifteen years of age; that the complaint in 58 per cent was urinary disturbance, frequently retention; in 38 per cent, abdominal tumor. The case to be reported here was brought to light by a complaint of amenorrhea.

REPORT OF CASE

L. L., female, age fifteen, a senior in high school, was referred for examination at school by the instructor in physical education, on September 21, 1937. In addition to the complaint of amenorrhea, she stated that in December, 1936, she noticed a small mass in the lower abdomen. This had increased somewhat in size, and was associated with right lower quadrant pain which she and her mother had attributed to her appendix. For the past few weeks there had been anorexia, nausea, and occasional vomiting. Her mother had been concerned about the failure of menstruation to appear, and had been giving her a well-known proprietary compound. The history did not suggest periodic menstrual symptoms. There was no urinary disturbance nor discomfort while sitting, as described in some reports.

Examination showed an undernourished white girl of normal development, but apparently not well. No pathology was found except in the abdomen. The breasts were well developed and pubic hair was normal. In the lower midabdomen a visible and palpable tumor was present. This was the size of a four or five months' pregnancy—firm, movable, and not tender. It seemed to be more firm than a pregnant uterus, and no fetal heart tones were heard. The patient was unable to state just when her breasts developed, but her mother recalled consulting a physician five or six years before because one breast was developing more rapidly than the other. She was sent to the Yolo County Hospital for pelvic examination and treatment with a tentative diagnosis of hematocolpos.

Pelvic examination on September 24 revealed a bulging, intact hymen, best described as similar to a small apricot in appearance. This was injected with novocain and a small longitudinal incision made. Dark blood and ropey mucus escaped, estimated as over 1500 cubic centimeters in amount. The tumor receded, and the following day the patient was discharged. Two days later all flow had stopped and she was permitted to get up. On the evening of September 29 she suddenly started flowing. When seen an hour later, all flow had stopped and apparently only old blood had been discharged. This may have been trapped in the uterus or vagina. She entered the hospital again on October 4, at which time some old blood was found retained in the vagina and the hymen would not admit the tip of a finger. Under gas anesthesia the incision in the hymen was enlarged in a radial manner. On two subsequent occasions she returned for dilatation, at which times the introitus would admit two fingers. She had refused further treatment, and when last examined the introitus would admit only one finger.

The first menstruation occurred on November 5, with normal flow, lasting for six days. Three subsequent periods have been of average flow, interval thirty-three to thirty-four days, lasting five to six days. The first day of each period has been accompanied by backache and rather marked nervous symptoms, which were not present before surgery. General health and color have definitely improved.

This case may serve to emphasize the importance of medical investigation of instances of delayed menstruation. It illustrates, also, the need of wide incision of the hymen if recurrence or stenosis is to be avoided.

Yolo County Health Department.
Yolo County Hospital.

1 Calvin, Joseph K., and Nichamin, Samuel J.: Hematocolpos Due to Imperferate Hymen. Am. J. Dis. Child., 51: 832-846, (April) 1936.

SARCOPHAGID MYIASIS

By F. F. Gundrum, M.D.
AND
H. H. Keifer, B.S.
Sacramento

THE big, gray flesh-flies, Sarcophaga, are common in California. Infestation with their larvae has not been reported from this district; hence, the following case may be of interest.

REPORT OF CASE

Mrs. H. P., white, thirty-two, married, came to the office on October 5, 1936. She had been "feeling miserable all summer, with aches and pains all over." She did not take any treatment. About September 1 she had a tender and painful swelling in the right lower abdomen; this moved to the right groin, then under the thigh, and finally to the left hip, where the "bump opened one night while she was in bed and a worm came out."

Upon examination there was seen to be a clean-cut oval hole, 3 by 2 millimeters in size, on the posterior surface of the left thigh at the junction of the upper and middle thirds; no induration or redness. The offending "worm" was a larva about 20 millimeters long and 6 millimeters in diameter, with a sharpish point at one end and rather abruptly squarish at the other.

This larva was poured down the sewer (much to our distress) by a laboratory "Diener"; however, about six weeks later our patient mailed us a smaller, less well-developed specimen, which had come out of the left leg by its cutting a small, oval hole through the skin. Exit of the worm promptly relieved the swelling and soreness previously distressing.

COMMENT

The maggot, which is nearly half an inch long and rather badly distorted, has been very kindly determined for us by Dr. M. A. Stewart of the University of California as, apparently, Sarcophaga sp. It is a Muscoid type, lacking the characteristic spines of the Œstrids and, therefore, not referable to the botfly group. Muscoid larvae of the Sarcophagid group have rather characteristic caudal structures, which are not apparent in this larva, due mainly to the distortion. The rear spiracles are very small, suggesting that the larva is quite immature. We can, therefore, conclude that the species involved is an unusually large fly. (Wohlfahrtia vigil, a Sarcophagid which has been taken

from beneath human skin in the maggot stage, has a larva known to attain a length of slightly over half an inch.)

The Sarcophagids rarely cause human myiasis. There are two or three cases on record in the United States, covering a period of some years (one very recent), in which Sarcophagid larvae were removed from under the skin of infants. The "Review of Applied Entomology" lists a few human records for the past ten years, but these are nearly all Oriental, and are primarily of Sarcophagid larvae in the alimentary canal. Calliphorid larvae (similar flies) also cause human subcutaneous myiasis.

In larval food habit, the Sarcophagids are almost invariably connected with other animals. Some breed in excrement. Many feed on carrion and dead animals. Some are important insect parasites and some are parasites of warm-blooded animals. Insects of this type are continually annoying to the human animal, in one way or another; and the occurrence here recorded, while unusual, is entirely in line with the possibilities.

Medico-Dental Building.
Department of Agriculture.

POLYCYTHEMIA VERA OF THE GEISBÖCK TYPE

By LAMBERT B. COBLENTZ, M.D.
AND
FERRALL H. MOORE, M.D.
San Francisco

BECAUSE of the relative rarity of polycythemia vera, and of certain interesting features, the following case is reported as one conforming to the so-called Geisböck syndrome of true polycythemia, hypertension, and absence of splenomegaly.

REPORT OF CASE

The patient, a woman aged fifty-seven, was first seen on March 10, complaining of recurring vertigo, tinnitus, faintness, and visual blurring during the previous week. During this time she had had a hematemesis of an estimated cupful of blood on one occasion. The family history was not significant. The patient had suffered from migraine until the menopause, at age forty-eight. She had had seven pregnancies, unassociated with any toxemia so far as known, all delivering normally at term. There was no history suggestive of a previous glomerulonephritis. Hypertension had been discovered four years ago on routine examination, and the patient had been under the care of her local physician since. Nocturia, two or three times per night, had been present for three years. During the past year the patient, who had been obese, had reduced some forty pounds by diet. General and systemic histories were otherwise negative.

Physical examination revealed a slightly obese woman of stated age, with grey hair and ruddy complexion. The lips were cyanotic and the mucous membranes deeply reddened. Complete dentures were present. The tonsils were small, with chronic infection. The pupils were equal and regular, reacting normally to light and accommodation. Fundus examination revealed considerable narrowing and nicking of the retinal arterioles, with arteriovenous compression; the retinal veins were remarkably distended. A few scattered small hemorrhages were noted, as well as some cotton-wool patches and small areas of hard macular exudate. The discs were normal. The thyroid was not enlarged, and no adenopathy was noted. The lungs were negative, no emphysema being found. The heart was enlarged to the left, all tones were loud, and the aortic second was accentuated. Radial thickening, graded 2, was present; the blood pressure was 220 systolic, and 120 diastolic. Neither liver nor spleen were palpably enlarged at any time. Diastasis recti was present. The uterus and adnexa were small and atrophic, and moderate cystocele was found. There was no peripheral edema, and all peripheral arterial pulsations were normal. Neurological examination was negative. The provisional diagnosis made was that of Essential Hypertension Group 3 (Keith-Wagener): general and cerebral arteriosclerosis; cardiac hypertrophy; and possible polycythemia vera.

Laboratory findings were as follows: red blood cells, 8,560,000, hemoglobin, 145 per cent (Sahli); white blood cells, 14,500, with 79 per cent neutrophils, 1 per cent eosinophils, 2 per cent basophils, 15 per cent lymphocytes, and 3 per cent monocytes. No myeloid immaturity was found. The platelets on the stained smear were markedly increased both in number and size. The packed volume of red cells by hematocrit determination was 61 per cent. The blood volume (Rowntree-Geraghty) was 240 cubic centimeters per kilogram. The blood Wassermann was negative. Urinalysis revealed a specific gravity of 1.017, a trace of albumen, and a moderate number of hyaline casts. Glycosuria was not present. The blood sugar was 139 milligrams, and the NPN 71 milligrams per cent. Urinary concentration tests showed a maximum specific gravity of 1.016.

Course.—After twenty-four hours of bed rest and sedation, the blood pressure had come to a level of 180 systolic and 100 diastolic, but marked vertigo and tinnitus persisted. A venesection of 500 cubic centimeters was done. On the same day the patient had a hematemesis estimated at 500 cubic centimeters. Vertigo still being marked, and the pressure level remaining the same, another venesection, of 750 cubic centimeters, was done on the third day. Following this, the red blood cells were found to be 6,500,000, hemoglobin 118 per cent (Sahli), and hematocrit percentage 47. Several days later, on being allowed to sit up in her chair, the patient complained of dull substernal pain, radiating down the ulnar side of the right arm. Examination of the heart was negative, and an electrocardiogram showed only left axis deviation, slight elevation of the S-T segments in the first and third leads, and a diphasic T3. In the following days there was no further pain, no fever, and no audible friction rub. On the ninth day the NPN was 41 milligram per cent, and the patient felt much improved, being up and about the hospital with no further substernal pain save on one brief occasion. Due to the high incidence of vascular thromboses in these cases we endeavored to keep the patient ambulant so long as we deemed it consistent with her cardiac reserve. At the end of three weeks the pressure level had fallen to 130–150 systolic and 80–94 diastolic and vertigo did not recur. Fundus examination showed no change, save for diminution in size of the previously engorged retinal veins. The patient was dismissed from hospital on a regimen of rest, moderate, protein-low salt diet, and sedative medication. Because of the evidence earlier noted of impairment of renal function, it was deemed unwise to attempt control of the polycythemia by phenylhydrazine, which is somewhat slowly eliminated, or by irradiation, in the presence of only slight leucocytosis without myeloid immaturity. Accordingly, it was decided to control the red cell count by periodic venesections, and the patient was instructed to report to the office in two weeks for hematocrit determination, as well as for a gastrointestinal series to rule out any malignant cause for the hematemeses previously cited. At this time the packed red cell volume was 51 per cent and the blood pressure was 190 systolic and 110 diastolic; substernal pain on exertion had been present for several days. The venesection was deferred until later in the week, but the following morning one of us was called to see the patient at her home, and found her in shock, presenting the classical picture of sudden severe coronary occlusion. Death occurred several hours later. Permission for autopsy was not obtained.

COMMENT

A case of polycythemia vera is presented, without splenomegaly, and associated with severe hypertension and renal insufficiency; the immediate response of all three conditions was favorable following venesections. Death occurred suddenly, some weeks later, from acute coronary occlusion.

384 Post Street.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

HEMORRHAGE FROM THE UTERUS

I. ETIOLOGY

H. N. Shaw, M.D. (901 Pacific Mutual Building, Los Angeles).—At the risk of seeming elementary, I wish to define clearly the terms "menorrhagia" and "metrorrhagia." In the former, excessive menstruation, the flow may be greater than normal in amount, may be prolonged, or may occur at too frequent intervals, but there is no bleeding between the periods. By metrorrhagia we mean uterine bleeding that occurs independently of menstruation.

We shall consider three age periods in this discussion.

1. Childhood to puberty (1 to 14).
2. Child-bearing period (14 to 45).
3. Postmenopausal (45—).

I. INFANCY AND CHILDHOOD:

The commonest causes of bleeding in this period are endocrine disturbances. For example, withdrawal of maternal estrin at birth, ovarian (granulosa cell) or pituitary tumors. Rarely, malignancies of the uterus may be the cause. Systemic diseases, chlorosis, and the various blood dyscrasias are often factors.

II. CHILD-BEARING PERIOD:

The important causes of abnormal uterine bleeding at this time are, in order of their frequency: (1) abnormalities of pregnancy; (2) endocrine disturbances; (3) pelvic inflammations (endometriosis); (4) fibroid tumors or polyps; (5) cancer of the cervix; (6) cancer of the fundus; (7) ovarian tumors; (8) syphilis; (9) blood dyscrasias, cardiovascular, kidney and chest diseases.

1. *Abnormalities of Pregnancy.*—I have placed these at the head of the list, not only on account of their relative frequency, but for their importance from a medico-legal standpoint. There are a great many women coming to doctors' offices giving false histories in the hope of a curettage to end an unwanted pregnancy, or perhaps to obtain grounds for a fat damage suit. A careful history and physical examination will usually rule out the question of pregnancy. In some cases an Aschheim-Zondek test is necessary. Under this heading come intrauterine pregnancies with abnormal bleeding, placenta praevia, threatened or missed abortion, ectopic, retained placenta, hydatidiform mole, and the rare chorio-epithelioma.

2. *Endocrine Disturbances.*—These must be considered in all cases where there are no definite lesions demonstrable. Study of the endometrium is of vital importance. A fairly frequent cause of abnormal bleeding is the so-called incomplete menstruation. The endometrial fragments not cast off remain and cause an irritation of the new endometrial lining. Minor disturbances, on biopsy, show a more or less normal endometrium, indicating a first-degree ovarian failure. The severe bleedings show a high percentage of cystic hyperplasia, indicating second-degree failure. It may occur with atrophic endometrium, indicating third-degree failure. Other more serious causes must be eliminated before a diagnosis of endocrine dysfunction is made. Some years ago a 34-year-old patient, who had been studied in a hospital, was referred to us from an Eastern clinic. To quote from her physician's letter: "The possibility of an intra-uterine polypus was considered, but nothing definite was found. She seemed to have functional disturbance." On curettage, we found fundus carcinoma.

3. *Pelvic Inflammations.*—Pelvic inflammations, usually of gonorrheal or puerperal origin, are very common in this age period. Under this heading should be included endometriosis, which can rarely be differentiated from salpingitis before operation. The cause of the bleeding is probably endocrine—an irritative stimulation of the ovary. Curettage in low-grade salpingitis, which cannot be diagnosed by palpation, may light up the process and cause a severe exacerbation.

4. *Fibroid Tumors.* — Fibroid tumors usually cause menorrhagia. Those that cause bleeding are most often submucous, and intra-uterine exploration with the curette may be necessary to make the diagnosis. Fibroid polyps, and mucous polyps of the endometrium or cervical mucosa, are common causes of severe menorrhagia.

5. *Cancer of the Cervix.*—Cancer of the cervix must be considered in any case of abnormal bleeding, especially in the latter half of the child-bearing period. Biopsy should be made of any suspicious area of the cervix. The bleeding varies in amount, and is always venous.

6. *Cancer of the Fundus.*—Cancer of the fundus is more common toward the end of, or after the child-bearing period. It usually causes metrorrhagia, less severe than malignancy of the cervix.

7. *Ovarian Tumors.*—Ovarian tumors, whether cystic or solid, are frequent causes of bleeding. The benign tumors rarely cause it unless they become twisted, but the malignant types usually do.

8. *Syphilis.* — Syphilis should never be overlooked. Gellhorn cites a patient with a negative Wassermann who had endocrine therapy and several curettages without improvement. Radium or surgical treatment were considered. On further questioning it was found that her father had died at forty of cerebral syphilis. Under specific treatment her abnormal bleeding promptly stopped. Two 15-year-old girls with severe metrorrhagia, who had shown no improvement under various endocrine products, were found to have positive

Wassermanns. Appropriate treatment stopped their abnormal bleeding.

9. *Blood Dyscrasias.* — The various blood dyscrasias, cardiovascular, kidney and chest diseases must be considered.

III. POSTMENOPAUSAL:

Malignancies of uterus or ovary are the most important causes of abnormal bleeding in this group. Mild bleeding may be due to atrophic or senile vaginitis, or to ulceration from foreign bodies such as pessaries or tampons.

* * *

II. DIAGNOSIS

JOHN N. EWER, M.D. (411 Thirtieth Street, Oakland).—Diagnosis of a given case of uterine hemorrhage may be extremely difficult or quite simple. Each has its cause, whether or not it can readily be identified by the means at our disposal. Such bleeding in itself is only a symptom, not a disease, and no stone should be left unturned in the search for the cause in any case in which bleeding departs significantly from the normal.

In this discussion, any abnormal genital bleeding of whatever amount, whether hypermenorrhea, polymenorrhea, metrorrhagia, or combinations of these, will be included in the term "uterine bleeding."

A complete history and physical examination, together with indicated laboratory examinations, is a *sine qua non* whenever the cause is not at once apparent. A mere pelvic examination is not enough. Moreover, the indiscriminate trial of various endocrine products without physiologic reasons for their use, and in the absence of adequate efforts at diagnosis, is to be deplored. Every gynecologist has seen valuable time lost in undiagnosed cases of cancer, ectopic pregnancy, polyposis, and other conditions which have been treated in this way. There is a fertile field for the use of these products, often in cases which in former years could only be cured by radical means, but they should be considered only where physiologists have shown them to be indicated.

There are probably causes of uterine bleeding which are as yet not recognized, but such, I believe, are not common.

It goes without saying that every case of abnormal genital bleeding should have a careful pelvic examination, always including visualization of the vulva, vagina, and cervix. Smears should be taken at this time if any evidence of infection exists. If there is possibility of a disturbance of pregnancy, it must be performed asceptically. In case a sizable tumor can be palpated abdominally, auscultation should not be neglected, as fetal heart-tones have at times been heard in "ovarian cysts" or "fibroids," or a pregnancy may coexist with ovarian or fibroid tumors.

It is easiest, I think, to discuss the diagnosis of uterine bleeding according to age groups, such as in adolescence, the period of maturity, premenopausal, and postmenopausal. A working knowledge of the normal physiology as it relates to the female genital tract is essential for the proper understanding of its aberrations; many cases, perhaps more than we now realize, of uterine bleeding are the result of endocrine dysfunction.

Abnormal bleeding in adolescence is usually upon an endocrine basis, due to disturbance in the anterior pituitary—ovary—endometrium relationships. Various special procedures exist whereby endocrine dysfunctions may be discovered, such as blood and urine hormone studies and by pathological study of bits of endometrium removed with the biopsy or suction curette. Facilities for blood and urine studies are often not available, and as yet often incompletely understood; as a rule they must be repeated at frequent intervals, because the values for hormones normally vary at different stages of the menstrual cycle. It is usually simpler to rely on endometrial biopsies. If these are taken at the right times, particularly in cases in which a cycle can be recognized, they will show definitely whether the sequence of follicle ripening, ovulation and corpus luteum formation has taken place.

It must be remembered that in the adolescent such conditions as disturbances of pregnancy, both normal or ectopic, genital sarcoma and ovarian tumors may occasionally be encountered.

During sexual maturity, complications of pregnancy should always be considered first. The date of the last menstrual period and its characteristics should be determined. Threatened or incomplete abortion, ectopic or mole pregnancy must be kept in mind. If in doubt, the Friedman test for chorionic hormone may prove valuable; but it will become negative within one to two weeks after the death of fetal elements.

Any bleeding after a mole pregnancy certainly, or hemorrhage occurring a few weeks following a normal pregnancy or abortion, should be checked by means of a Friedman test to rule out the occasional case of chorio-epithelioma. Here the curette is not conclusive in the absence of positive findings; nodules may be deep in the uterine musculature or in even more remote locations. Furthermore, it is not considered best to disturb these growths if the diagnosis can be made otherwise.

Decidua without chorionic villi, obtained by the curette, is pathognomonic of ectopic pregnancy, but many cases do not show this feature. Retention of secundines is the most frequent cause of hemorrhage postabortum or postpartum.

During this period of life functional bleeding can also occur, but less often than at the extremes of menstrual life. Such bleeding is now regarded as endocrine in nature; diagnosis is made, in addition to the usual history and physical examination, by such procedures as endometrial biopsy, hormone assays and the determination of the basal metabolism. Hypothyroidism, usually not of severe grade, is a frequent finding; it should be specially sought for in all cases.

Most abnormal bleedings during these years, however, have an anatomical basis. Uterine fibroids, particularly those in submucous location, cervical or endometrial polypi, adenomyomata or adenomyosis, account for many cases, and if present will almost always, sooner or later, cause some sort of abnormal bleeding. Subinvolution postpartum and

cervical lacerations may also be responsible. Various types of ovarian cysts, depending upon their endocrine influence or upon the fact they may cause local circulatory disturbance, can cause abnormal bleeding.

Many acute or subacute cases of pelvic inflammatory disease cause hypermenorrhea, and not infrequently metrorrhagia as well. An acute cervicitis often bleeds a little, particularly if traumatized.

The sedimentation rate is of much value in differential diagnosis in many of the less obvious cases, and is not used as often as it should be. The rate is moderately increased in pregnancy, and is fast in acute pelvic inflammatory conditions. It has often settled the diagnosis between salpingitis and tubal abortion, since both conditions usually show the symptoms of pain, rise of temperature, leukocytosis, and a pelvic mass. To most of us, who feel that no case of acute pelvic inflammatory disease should be operated upon, this simple test has been most reassuring. Uncomplicated fibroids and ovarian cysts cause no change in the sedimentation rate.

Toward the end of the period of sexual maturity cases of hemorrhage from the uterus again become more frequent and severe, and again the endocrine factors assume an increasingly important part in their causation. Bleeding at this time, associated with endometrial hyperplasia, can be extremely profuse. Experimental work so far seems to show the ultimate cause to lie in disturbance of production of the luteinizing factor of the anterior pituitary. The endometrium shows a prolonged or increased estrin effect, often to the point of the "Swiss cheese" pattern as described by Novak. Microscopic sections of the endometrium usually furnish the final diagnosis in such cases, but it must be remembered that bleeding can occur at times from almost any type of endometrium.

The question of malignancy appears during the period of sexual maturity, but with increasing frequency as the years pass. Of types of cancer causing genital bleeding, that of the cervix is the most common, but carcinoma of the uterine corpus is being found more and more frequently before the menopause, particularly in women with fibroids. The incidence of cystic and solid carcinomata of the ovary increases as age advances, although the granulosa cell variety is now being reported equally often before the menopause.

Malignancy is usually diagnosed by means of the history and pelvic examination, and confirmed by microscopic examination of tissue. It must be emphasized again that no pelvic examination should be made without the use of the speculum. Biopsy from the cervix can be taken at the office from any suspicious case, with thorough cauterization of the area immediately following. If carcinoma is grossly obvious, however, it is better to defer the biopsy until the time of treatment.

After the menopause most of the causes heretofore mentioned may bring about uterine bleeding, but now malignancy assumes the commanding rôle; endocrine factors, except in so far as they may be present as a result of certain benign or malignant tumors of the ovary, fade into the background.

Most gynecologists feel that every case of metrorrhagia before the menopause, and any bleeding thereafter, should have thorough curettage for microscopic diagnosis, unless contra-indications exist or the cause of the bleeding be readily apparent. Carcinoma of the corpus is almost always diagnosed in this way, and if hyperplastic endometrium is found in a woman past the menopause an ovarian tumor must be ruled out.

In old women with senile atrophy of the genitalia, bleeding, especially after trauma, may come from an adhesive type of vaginitis, but it must be remembered that cancer of the uterus can coexist.

There remain various causes of bleeding from the uterus which may be sought for if the results of examination at any age do not explain its nature. Various cardiac conditions with chronic passive congestion of abdominal organs, certain cases of hypertension, and rarely hepatic cirrhosis, as well as the hemorrhagic types of blood dyscrasias, may be associated with uterine bleeding. Among the acute infectious diseases, pneumonia, typhoid, and influenza, or constitutional disease such as diabetes, scurvy or lues, may be an occasional offender.

* * *

III. TREATMENT

Margaret Schulze, M.D. (University of California Medical School, San Francisco). — The treatment of menorrhagia is one of the most troublesome problems in gynecology. The bleeding may be controlled readily enough, but to do this without destroying functional activity in the young individual or causing sequelae far more distressing to the patient than the menorrhagia itself may at times be exceedingly difficult.

A first essential to the treatment is an accurate diagnosis, and this must include a careful general examination with a survey of the endocrine system, and at least a basal metabolism and perhaps other functional studies. A careful pelvic examination must be done to rule out gross anatomic lesions, and a microscopic study of the endometrium is essential. When the bleeding is definitely cyclic in character but merely profuse and prolonged, an office biopsy without anesthesia may be sufficient; but in all cases where irregularity of the bleeding suggests the possibility of malignancy, and certainly in all older patients, a careful and complete curettage under anesthesia must be done. Nothing can be more reprehensible than the long-continued endocrine or other general treatment for menorrhagia before malignancy is definitely ruled out. In certain cases of bleeding, particularly those due to the so-called incomplete shedding of the endometrium, curettage may be curative, and certainly its results should be awaited in all cases of menorrhagia of recent origin before proceeding to other treatment which may be crippling in its sequelae.

Certain women with menorrhagia may have had bleeding so long-standing and so severe that they are extremely anemic when they first appear. Such patients should be transfused before other types of treatment are proceeded with. Occasionally, in the adolescent, menorrhagia, transfusion may be curative.

Gross anatomic lesions are, of course, dealt with according to well-recognized surgical principles and usually require operative treatment. Bleeding, associated with salpingo-oöphoritis which does not respond to the ordinary conservative measures, including bed rest, will usually be controlled by intravenous injections of Congo-red. One injection of ten cubic centimeters of the sterile isotonic solution may be sufficient, but occasionally two or three at two-day intervals are required.

In the treatment of functional menorrhagia, the number of therapeutic procedures which have been introduced is legion—sufficient evidence that none of them is ideal. These methods have been divided by Keene and Payne into seven groups: (1) hygienic measures; (2) uterine stimulants; (3) means to increase coagulability of the blood or to decrease the permeability of the capillaries; (4) endocrine therapy; (5) removal or destruction of the endometrium; (6) roentgen or radium therapy; and (7) surgical procedure upon the ovaries or the uterus. A most important fact, which has been repeatedly emphasized by Frank and has been borne out by observations in our own clinic, is that many of these functional disturbances, even those of severe type, are of transient nature and tend to spontaneous cure, and therefore too radical treatment is entirely unjustified and may do far more harm than good. If the patient, particularly those in the younger age groups, can only be tided over her periods of bleeding for a certain length of time, the condition will tend to correct itself.

Hygienic measures include the relief of dietary insufficiency, particularly that of protein and of vitamin C, the correction of secondary anemia and the removal of focal infections.

Uterine stimulants, including pituitrin, ergot preparations, extracts of hydrastis, and stypticin, may help tide the patient over periods of active bleeding, although they do nothing to influence the underlying condition.

Blood coagulants and endothelial stimulants have been used too recently, and in series too small to permit a final evaluation, although excellent results have been reported in about two-thirds of the cases with Congo-red by Rossak, Deinhardt, and others. Our own experience in the use of this substance has been limited to cases of bleeding associated with salpingo-oöphoritis, where the results have been satisfactory. Peck and Goldberger have reported good results in ten of twelve cases treated by the subcutaneous injection of moccasin venom.

Although functional menorrhagia is admittedly an endocrine disturbance, results with endocrine preparations which theoretically should be effective have been somewhat disappointing.

Thyroid extract remains the most valuable of these, and since it is simple to use, inexpensive and frequently effective, should be given a trial in all cases showing a slightly lowered or even normal basal metabolism. It is successful in a considerable proportion of adolescent menorrhagias, and may be useful even in preclimacteric bleeding.

Theoretically, since a high proportion of these cases show hyperestrinism and an absence of the corpus luteum, the newer potent corpus luteum extracts should be effective; but, clinically, our results with them have been disappointing, whether or not because of insufficient dosage of this very expensive preparation, we cannot say.

Urinary prolan preparations have not given, in our hands, the brilliant results reported by Novak and others, but may be effective and are worth trying. Two hundred rat units are given daily until the bleeding ceases, or until ten injections have been given. Some authorities continue with a one hundred rat unit dose at three-day intervals in the intermenstrual period, while others await the next period and repeat the treatment as frequently as necessary.

The indications for curettage have already been discussed. Destruction of the endometrium by other methods, such as steam vaporization or chemical caustics, are mentioned only to be condemned, since they may be attended by disastrous sequelae or even death.

More radical operative treatment, such as hysterectomy, should almost never be done, although in certain rare cases in relatively young women who have exhausted all the other therapeutic possibilities it may be considered less radical than the production of the premature menopause by radiation. The possibilities that long-continued hyperestrinism may be due to a granulosa cell tumor so small that it has been overlooked should always be borne in mind. In such a case, brilliant results will follow its removal.

The results of a follow-up study of cases of menorrhagia treated with radium have led to a sharp limitation in its use, and we now practically never employ it in young women or in any case where the production of an artificial menopause would be undesirable. The menorrhagia can practically always be controlled, but sometimes with sequelae far more distressing to the patient than was her bleeding. The feeling that normal periods can be restored by small dosages was shown to be fallacious, since this result was obtained in only 35 per cent of women under thirty-five and 7 per cent over this age. Although in general the results were fairly uniform, the individual variation in response was so great that it was quite impossible to predict the outcome. Small doses used cautiously often necessitated further treatment, yet bleeding sometimes continued after large repeated doses, while permanent amenorrhea was in some cases produced by less than 500 mch. Dyspareunia, due to vaginal atrophic changes, frigidity and sterility, were a frequent source of complaint; the latter, of course, probably often primary, but attributed by the patient to the treatment. Severe menopausal symptoms were not frequent in our series, and did not seem proportional to the dosage as maintained by Keene and Paine. However, even women near the menopausal age were sometimes intensely dissatisfied by the sudden cessation of their functional activity when they had not understood that this might happen. Since curettage to eliminate malignancy is so urgently indicated in all this group and a menopausal dose of radium is curative, it seems logical to administer it at once and most patients are entirely satisfied to have this done. In

fact, our most grateful patients were in this group, many stating that they had never felt so well. However, once malignancy has been eliminated, there is no great risk in conservative treatment; and although radiation will eventually be required in most of this older group, the patient will be far more satisfied if she reaches this conclusion herself. A careful explanation of the whole situation, with the patient making her own choice, is desirable. Roentgen irradiation gives results very similar to radium, but since a curettage is urgently indicated in any case before radiation it is simpler to complete the treatment with one dose of radium intra-uterine, unless there are contra-indications to radium, as with previous pelvic peritonitis or postoperative adhesions, when there might result serious damage to an adherent loop of intestine.

The treatment, therefore, in the young individual should exhaust all possible palliative methods, of which there are many, before resorting to radical operative or radiation therapy; while, in the premenopausal group, radiation gives almost ideal results, provided the patient understands clearly what these results will be.

New York's New Nurse Practice Law.—New York's legislative tussle ended April 6, 1938, when Governor Lehman signed its new Nurse Practice Act. It has been watched with keen interest by nurses all over the country, not only because many are considering a revision of the laws in their own states, but because thousands of persons are affected by the provisions of the Act.

The Nursing Information Bureau has received numerous inquiries about the new law. All are referred either to Miss Stella Hawkins, Secretary of the New York State Board of Nurse Examiners, State Education Building, Albany, or to Miss Emily J. Hicks, Executive Secretary of the New York State Nurses' Association, 152 Washington Avenue, Albany, New York. Both have all details about the bill and its interpretation at their finger's tips.

An informal statement about the major provisions of the Act follows:

The Act defines nursing practice. It becomes law July 1, 1938. However, nurses now practicing but not licensed, are granted two years' time in which to become licensed. In other words, after July 1, 1940, all who wish to practice nursing for hire in New York State, must be duly licensed. If they are not, they will be subject to substantial fines or imprisonment.

Two classes of licenses will be issued: one to practice as a registered professional nurse; one to practice as a practical nurse.

The letters R. N. may be used by registered professional nurses only. No letters, figures or words other than "practical nurse" may be used to designate a licensed practical nurse.

Citizenship is a requirement for registration. However, if a nurse is not a citizen but has declared her intention to become one, a license may be issued, but will be void at the end of seven years if the holder has not become a citizen of the United States.

Who are eligible for R. N. licenses: In general, all nurses who wish to be registered professional nurses must meet specified requirements of age, preliminary education, citizenship and character, and the course in nursing which they had must be considered satisfactory by the New York State Department of Education. In addition:

1. All nurses who are New York State registered nurses on July 1, 1938, will be considered registered professional nurses when the Act becomes effective on that date.

2. Nurses who are graduates of schools of nursing which have been registered by the New York State Department of Education, will be eligible for licensing as registered professional nurses.

3. For the two-year period—July 1, 1938, to July 1, 1940—nurses whose preparation and experience are considered satisfactory by the New York State Department of Education, may be licensed under a special waiver. Space does not permit a complete statement about its provisions in this bulletin. One of them, however, affects so many nurses throughout the country that it is included:

Graduates of schools of nursing, accredited in any other state, province or country, who meet all except the residence requirements, may take New York State Board examinations. If they pass them, they will be licensed as registered professional nurses.

Inquiries about the other provisions should be sent to the New York State Board of Nurse Examiners.

Who are eligible for the practical nurse licenses: In general those who wish to be licensed practical nurses, must meet specified requirements of age, character, citizenship and preliminary education (completion of the eighth grade or its equivalent); they must be graduates of registered schools for practical nurses, which give at least a nine months' course in practical nursing; and they must pass examinations.

A special waiver, effective from July 1, 1938, to July 1, 1940, provides for the licensing of trained attendants and of those who have rendered satisfactory service over a given period of time.

Mesenteric Vascular Occlusion.—The study Lorin D. Whittaker, Peoria, Illinois, and John de J. Pemberton, Rochester, Minnesota (*Journal of the American Medical Association*, July 2, 1938), present is based on a consecutive series of sixty proved cases of mesenteric vascular occlusion seen at the Mayo Clinic, in fifty-seven of which necropsy was performed; in the remaining three cases surgical procedures performed for the occlusion were survived. There were thirty-six cases (60 per cent) in which mesenteric vascular occlusion was unrelated to any previous surgical procedure and, of this group, only sixteen patients (two of whom survived) were subjected to abdominal exploration; the condition of the remaining twenty patients did not warrant surgical intervention. There were twenty-four cases (40 per cent) in which mesenteric vascular occlusion followed some operative procedure (splenectomy, appendectomy, herniorrhaphy and the like) and, of this group, only three patients were subjected to reëxploration. Reexploration was not made either because of the patient's immediately poor condition or because it was felt that operation offered no hope for recovery. Of the three cases in which reëxploration was carried out, in one the reëxploration followed an operation on the biliary tract; a volvulus was released on the fifth postoperative day and recovery followed. Thrombosis of the vessels which supplied two feet (70 centimeters) of ileum had occurred. In the second case, reëxploration followed splenectomy for splenic anemia. Enterostomy was performed on the twenty-seventh postoperative day; the jejunum was found discolored. Venous thrombosis continued to the extent of completely blocking the superior mesenteric and portal veins; death occurred on the twenty-ninth postoperative day. In the third case reëxploration followed hysterectomy. On the eighth postoperative day an internal hernia through the transverse mesocolon was reduced; the lower part of the ileum was discolored, and thrombosis of the superior mesenteric artery and vein progressed to the extent of complete involvement. Death occurred on the tenth postoperative day. The mortality rate in the entire group was 95 per cent; the mortality rate of patients operated on for occlusion was 84.2 per cent. The incidence of involvement of the superior mesenteric artery as compared with that of the superior mesenteric vein compares closely with the relative incidence reported by other authors. Involvement of the inferior artery in one case and of the inferior vein in two cases presents a rather high incidence of such involvement. The source of mesenteric vascular occlusion varies as to whether the artery or the vein is involved. Occlusion of the superior mesenteric vein occurs secondary to ascending thrombosis usually attributable to infectious processes, secondary to descending thrombosis from the associated portal vein or secondary to hepatic disease, or it follows an abdominal surgical operation. Hepatic cirrhosis was noted in some cases of splenic anemia and may have been contributory to thrombosis in these cases following splenectomy.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

WILLIAM W. ROBLEE.....President
CHARLES A. DUKES.....President-Elect
LOWELL S. GOIN.....Speaker
KARL L. SCHAUPP.....Council Chairman
GEORGE H. KRESS.....Secretary-Treasurer

THIS MONTH'S TOPICS

ASSOCIATION ACTIVITIES

1. *Council Minutes: 265th and 266th Meetings.*
2. *Announcement of Annual Session Awards for Scientific Exhibits.*
3. *A Proposed Chiropractic Initiative.*
4. *Our Obligations Prior to the California Primary Elections of August 30.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Joint Meeting of Solano, Sonoma, Napa and Marin County Medical Societies.*
2. *California Problem of Migratory Agricultural Workers (Migrants).*
3. *Have County Hospitals Legal Right to Make Hospitalization Charges to Indigent Patients? A Negative Opinion.*

COUNCIL MINUTES*

Minutes of the Two Hundred and Sixty-fifth and Sixty-sixth Meetings of the Council of the California Medical Association

Minutes of Council meetings are printed after their approval by the Council. The minutes of the two hundred and sixty-fifth meeting (organization meeting) and of the two hundred and sixty-sixth meeting (special meeting) will be considered by the Council at its September meeting and will be printed in the October issue of the Official Journal.

CALIFORNIA MEDICAL ASSOCIATION AWARDS FOR SCIENTIFIC EXHIBITS AT THE PASADENA ANNUAL SESSION, MAY 9-12, 1938

The Council's Committee on Scientific Exhibits (Doctors Lemuel P. Adams of Oakland, Mast Wolfson of Monterey, and E. B. Dewey of Los Angeles) made the following awards for scientific exhibits presented at the Pasadena annual session of the California Medical Association.

First prize, $100, to Dr. G. Mosser Taylor of Los Angeles for his exhibit, "Manipulative Surgery."

Second prize, $60, to Dr. Roger W. Barnes of Los Angeles for his exhibit, "Models of the Prostate."

Third prize, $40, to C. M. Hyland of Los Angeles for his exhibit, "Convalescent Serum."

PROPOSED CHIROPRACTIC INITIATIVE

At the time of this writing, word has come to us from unofficial sources that a proposed initiative to amend the existing Chiropractic Practice Act of California—which was adopted by vote of the electorate some years ago—would *not* be on the November 8 general election ballot, because of insufficiency in the number of legal signatures required. The lacking signatures are of sufficient number to indicate that at this late day, in the rush of other initiative petition distribution, the needed signatures may be rather difficult to secure.

One of the announced purposes of the proposed initiative was the elevation of the number of undergraduate student hours to the 4,000-hour level. With the legalization of a curriculum on such a basis, it would probably have only been a matter of time until other amendments to provide for special "physicians and surgeons' certificates for chiropractors" would be brought forward.

For the present, such an effort, if it was under contemplation, must bide for a later time. For which, both the public and the profession should be grateful.

OUR OBLIGATIONS PRIOR TO THE CALIFORNIA PRIMARY ELECTIONS

California's primary election will take place on Tuesday, August 30, a date about two weeks distant from the time on which the August issue of the Official Journal will be in the mails.

The final or general election will be held on November 8, 1938 (second Tuesday in November).

The fifty-third session of the California Legislature (Assembly and Senate) will convene at Sacramento in the first week of January, 1939.

• • •

The above dates are full of significance for the medical profession of California.

It is true that what will take place in next year's 1939 Legislature, as regards medical practice and public health standards for California, will depend in part upon the trend of elections on November 8, 1938, but even more on who may be selected as the official nominees of the Democratic, Republican and Progressive parties on Tuesday, August 30, 1938.

However, the importance of the Primary Election of Tuesday, August 30, is the thought these comments would particularly emphasize.

If, on that day, citizens could be nominated who are not antagonistic to the medical profession and the principles which its members hold in the matter of public health and medical practice statutes, and who will be happy to listen to the advice of physicians, then worry concerning the ballot count in the November election or the 1939 biennial session of the California Legislature would be greatly lessened.

Even though the present plea comes to the component county medical societies and the members of the California Medical Association only two weeks or so in advance of the primary election of August 30, much effective work for eligible and desirable candidates may still be done!

• • •

Now, what are some of the things to keep in mind concerning the work referred to, and in which every member of the California Medical Association should be interested? Should not items such as follow be remembered?

1. Who are the foremost candidates of the respective parties for offices of the assemblyman or senator in your own district?

2. Do you know aught of their background: in business, social or civic affairs?

3. Do you know any of them personally, or have you a friend or friends who know any of them with any degree of intimacy?

* The minutes of the two hundred and sixty-first, two hundred and sixty-second, two hundred and sixty-third, and two hundred and sixty-fourth meetings of the Council of the California Medical Association were printed in the July, 1938, issue of CALIFORNIA AND WESTERN MEDICINE, page 82.

4. Do you know whether they have family physicians; and if so, the names of the family physicians?

5. In your opinion, do they properly qualify for public office, as lawmakers?

6. Are you acquainted with their attitude on public health and medical practice matters?

7. Are they persons who have a kindly reaction to the medical profession and who would listen to, and give friendly consideration to the advice of physicians?

8. Do you intend to become personally acquainted with any of the candidates?

9. If you do contact the candidates whom you think you would prefer to support, is it your intention to let them know you are interested in their candidacies, and that you will be glad to keep them in touch with public health and medical matters, without either making or requesting promises?

10. If you know the family physicians of candidates, will you pass on to such colleagues the importance of the relation they bear, and the great aid they could be?

11. After learning about candidates, in case information of interest is passed on to you, do you intend to transmit the same promptly to your local Committee on Legislation and Public Policy, and to the State Association Committee, either directly or through the central office of the California Medical Association, Room 2004, 450 Sutter Street, San Francisco?

12. Is it part of your intention to ask fellow physicians, friends and patients to vote and work for the election of candidates who, as assemblymen or senators, could be safely relied upon for sound judgment and action on public health and medical practice matters?

• • •

The above may seem an appalling list of responsibilities in a matter not intimately connected with your personal practice; but if neglected, it is possible that you and your fellows may be called upon to give a vastly greater amount of time and effort to safeguard that very personal practice. We live in a rapidly changing world. All kinds of propaganda are in the air, and citizens without number have been so misled in their thinking that where in past years they could have been counted on for coöperative endeavor, today they are hesitant, distrustful, or even antagonistic.

• • •

To repeat:

The date of the California primary election is Tuesday, August 30.

Do your personal part, along lines indicated in the twelve points outlined above.

Pass on the information you secure to your local officers or committee, or to the State Association secretary, or to the State Association chairman of the Committee on Legislation and Public Policy. (The addresses of the State Association officers are printed in every issue of CALIFORNIA AND WESTERN MEDICINE, on advertising page 2.)

When you help in this, you help yourself, your colleagues, the medical profession and the public.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Joint Meeting of Solano, Sonoma, Napa and Marin County Medical Societies

Solano County Medical Society was the host unit for the Saturday, July 16, dinner meeting, with Sonoma, Marin and Napa county medical societies as the guest units, held at the Vallejo Yacht Club in Vallejo. About one hundred members from the four societies turned out, the occasion being honored by the presence of President W. W. Roblee of Riverside, President-Elect Charles A. Dukes of Oakland, and three past presidents, Doctors George G. Reinle, Robert A. Peers and George H. Kress.

Dr. Ream S. Leachman, president of the Solano County Society, opened the conjoint meeting, turning over to Secretary John W. Green the honor of introducing the guests from Mare Island Navy Yard, county and city officials from Solano County, and visiting physicians from San Francisco and other counties. An orchestra, entirely composed of physicians and dentists, under the able leadership of Lloyd E. Kindall of Oakland, entertained with popular and classical music. A vocal and dancing floor show added to the other enjoyable features. President-Elect Charles A. Dukes gave the major talk of the evening, but President Roblee, Councilor Henry S. Rogers of the Ninth District, and Association Secretary Kress also made informal speeches on organization needs and topics. Dr. James W. Morgan acted as master of ceremonies for the entertainment program. Dr. Jefferson Larkey conducted a symphony, all his own. The evening was voted a big success by all who were in attendance.

The photographs printed on page 156 in this issue of the Official Journal are ample evidence of the good time and fellowship.

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

* * *

Migratory Agricultural Workers in California: Their Influx an Increasingly Grave Problem for the State*

When more than 220,000 persons—men, women and children—enter a commonwealth within the short period of two and one-half years, to pursue a type of migratory existence, there immediately arises a problem neither unimportant nor neglible.

When, in addition, the great majority of these itinerants are both impoverished and undernutritioned, living from hand to mouth and moving from place to place in an effort to find work in one form or another in agriculture, for which, by previous experience, they may or may not be fitted, a solution of the problem becomes more difficult.

And then, when certain other factors come into play the economic, social welfare, medical and political responsibilities involved in the advent of these newcomers must at once become apparent. These factors are:

1. Lack of required legal residence that would entitle them, even though indigent, to treatment in county hospitals;

2. Indifference on the part of many of these persons to make an effort for themselves, or to find shelter with proper sanitary conveniences; and an

3. Incapacity, observable again and again, on the part of the women folk in particular, to prepare for routine meals those vegetables and fruits with which California abounds, and which the undernourished bodies of such wandering individuals are so often and so sorely in need.

Even though it be true that California is a great state, with inherent natural resources, and a citizenry able to meet almost any and all kinds of complications, it still must be evident that under conditions like those noted above our commonwealth may be faced with problems demanding for their solution extensive reserve resources of a material nature, as well as a broad and clear outlook from both state and local officials. For upon them rests the responsibility of guiding aright, into useful California citizenship, these émigrés—largely of North American stock who have come here, mostly from Missouri, Kansas, Arkansas, Oklahoma, Texas and Arizona—to take up residence and find for themselves and their families an honest livelihood.

That the situation is more than an interstate matter is evidenced by the coöperation already given by the Federal Government in an effort to solve the vexed problems. This was indicated in a report by Dr. Karl L. Schaupp, San Francisco, recently made to the Council of the California Medical Association, and printed on page 460 in the June issue of the Official Journal.

In the coöperative plan that has been developed during the last several years, federal agencies such as the Resettlement Administration of the U. S. Department of Agriculture (now the Farm Security Administration) and the U. S.

* EDITOR'S NOTE.—After this article concerning migratory workers was sent to the printer, an item on a political phase of the problem appeared in the San Francisco *Chronicle* of July 26. It is reprinted in this issue, on page 170.



Dinner of Solano (hosts), Sonoma, Marin and Napa County Medical Societies, at Vallejo Yacht Club, July 16, 1938. Guests at table, left to right: Norman Leet; Hartley F. Peart, legal counsel; Jefferson Larkey; Robert A. Peers, M.D., ex-president; Charles A. Dukes, M.D., president-elect; William W. Roblee, M.D., president; George H. Kress, M.D., Association secretary; Henry S. Rogers, councilor, Ninth District; Admiral David W. Bagley, commandant, Mare Island Navy Yard; Mayor Fred Heegler of Vallejo; Captain E. E. Curtis (M.C.), U.S.N., executive officer, Naval Hospital, Mare Island; Thomas O'Hara, president, Vallejo Chamber of Commerce; and Captain Grier Duncan, U.S. Navy.

Public Health Service, working with the California State Board of Public Health Service and the State Relief Administration, have united to form a nonprofit corporation known as the "Agricultural Workers' Health and Medical Association," the Federal Government allocating for its use the sum of $100,000. One of the seven members of the board of directors of this corporation, representing thereon the California Medical Association, is Dr. Karl L. Schaupp, the other physicians on the board being Doctors Albert E. Larsen, Medical Director of the State Relief Administration, and William R. P. Clark of the California State Board of Public Health.

This conjoint federal-state-civic organization—if it may be so styled—is the first body of its kind to be formed in the United States. California was selected, no doubt, because of the bigness and urgency of the problem of special migratory agricultural workers, as here briefly discussed. The implications involved in the situation, as it exists, and the plans made to combat the complications therewith associated, make the solution of more than passing interest. To for-



Dr. Lloyd Kindall's Orchestra of Doctors and Dentists.—Seated, left to right (front row): James W. Morgan, Jefferson Larkey, Lloyd Kindall; (upper row), Charles Greenwood, Edward Greer, Robert Taylor, Forrest Horner, Fred Hitchcock, Fred Fisher, William Stratton, Norman Leet; (standing), Lee Garron, Ted Redewill. (Photograph taken at the dinner of Solano (hosts), Sonoma, Marin and Napa County Medical Societies, at Vallejo Yacht Club, July 16, 1938.)

ward such a possible solving, the California Medical Association Council called into conference at San Francisco, on February 2, the secretaries or other representatives of twenty county medical societies from sections of the state where this problem was attracting more than ordinary attention. The attention of all members of the Association is now directed anew to the subject because future phases may be even more grave than those of the present.

The State Association headquarters requests component county societies to send to 450 Sutter Street, San Francisco, press or other reports, as work in connection with these migratory farm laborers goes forward.†

* * *

Have County Hospitals Legal Right to Make Hospitalization Charges to Indigent Patients? A Negative Opinion*

Dear Doctor:

I have read with interest the opinion of Deputy County Counsel L. K. Vobayda [of Los Angeles County] dated May 23, 1938, and addressed to the Board of Supervisors of the County of Los Angeles, a copy of which you forwarded to me. In accordance with your request, I will submit herein my reaction to the County Counsel's opinion.

* * *

In the first place, it is an exhaustive review of the California statutes relating to county relief and is an illuminating explanation of the collection methods followed in Los Angeles County and the reasons therefor. There is only one assertion contained in the opinion with which I disagree, but inasmuch as the particular statements concerned go to the heart of the opinion, I believe that I had better explain in detail my reasons for holding a contrary view.

The opinion of Deputy County Counsel Vobayda assumes throughout that Division IV of the California Welfare and Institutions Code, which is entitled: "Indigent Persons," and which contains those statutory provisions formerly found in the "Pauper Act of 1933," constitutes a specific grant of authority to all counties to collect after acquired property from persons receiving medical services and hospital care in county hospitals and that it is within the power of boards of supervisors to determine whether to operate county hospitals under said Division IV of the Welfare and Institutions Code or under Division I, Chapter III, of the same code, which is entitled: "Local Administration" and which contains specific sections relating to the government, management and control of county hospitals. For example, the following statements are found in the opinion:

"This is true because reimbursement for aid given in the general hospital of this county is governed by the Public Welfare Act, due to action of your board embodied in Sec. 4 of the Rules Ordinance making the Public Welfare Act applicable thereto,"

and

"It seems clear, beyond controversy, that the County of Los Angeles in administering hospital care is administering same under the provisions of the Public Welfare Act, which provides a liability upon an indigent for reimbursement if he acquires property after the aid is rendered to him and which consequently makes it the duty of the county to collect."

I am forced to disagree with these statements and with the assumption that the furnishing of medical services and hospital care to people who are actually ill or injured is governed by those sections of the Welfare and Institutions Code which relate to county aid and relief to indigents. In addition, I am forced to disagree with the statement that the board of supervisors of Los Angeles County or of any other county can determine by ordinance what general laws of the state they undertake to follow and what general laws they intend to deem inapplicable. Such determination is a matter for the legislature in the first instance and the courts thereafter, if legislative intent is not fully apparent.

As pointed out in the opinion of Deputy County Counsel Vobayda, Sections 200–203, inclusive, of the Welfare and Institutions Code (which were formerly Sections 4041.16 and 4223 of the Political Code) provide specifically for the erection and maintenance of county hospitals and the care and maintenance therein of indigent sick and dependent poor persons. These sections are permissive in nature, that is to say, county boards of supervisors may, if they so desire, erect and maintain county hospitals and may prescribe rules for the government and management thereof. But if a board of supervisors does maintain a county hospital, it must provide medical care and hospital facilities therein only to those persons in the county who are indigent sick or dependent poor. This point was decided in

Goodall vs. *Brite*
11 Cal. App. (2d) 540,

and a definition of the phrase "indigent sick or dependent poor," as used in Section 200, is contained in the opinion.

Sections 2500, 2600–2604, inclusive, of the Welfare and Institutions Code (these sections were formerly contained in the Pauper Act—Deering's General Laws, 1933, Act 5815) provide in substance that every county *must* support all residents therein who, by reason of poverty, incompetency, age, disease or accident are unable, through their own resources or through relatives or friends to provide necessary food, clothing and shelter. These sections also provide that where a county does grant aid and relief to its poor persons, it is entitled to take from such persons such property as they may have and such property as they may thereafter acquire—at least to the extent necessary to reimburse the county.

It is my opinion that the furnishing of medical care and hospital facilities to those indigent persons who are sick and injured in the county hospital is exclusively governed by Sections 200–203 of the Welfare and Institutions Code and that Sections 2500, 2600–2604 concern only the *support* of the poor by the county. An examination of Section 2500 shows that it is intended to govern incompetent persons and poor persons who are unable to provide themselves with food, clothing and shelter, and those incapacitated by reason of age, disease or accident to provide themselves with the means of livelihood. The section is quite clearly a relief measure and is not intended to affect in any manner the furnishing of medical care and hospital facilities. Section 2500 is quoted by Deputy County Counsel Vobayda, but in order to amplify my point, I shall quote it herein:

"Every county and every city and county *shall* relieve and *support* all incompetent, poor, indigent persons and those incapacitated by age, disease, or accident, lawfully resident therein, when such persons are not supported and relieved by their relatives and friends, or by their own means, or by state hospitals or other state or private institutions."

The reference to "state hospitals" is clearly intended merely to exclude from the mandatory duties of counties the support of incompetents and others committed to state institutions.

Section 2600 of the Welfare and Institutions Code, a part of the former Pauper Act, contains the phrase "while receiving public assistance" and the phrase "an applicant for public relief." Section 2603 provides as follows:

"If a person *for the support of whom* public moneys have been expended acquires property, the county shall have a claim against him to the amount of a reasonable charge for moneys so expended and such claim shall be enforced by action against him . . . The *support* of such indigent from public funds shall be deemed a ground for sale or encumbrance of his property . . . "

It is to be noted that Section 2500, Section 2600 and Section 2603 refer to "public assistance," "relief" and "support," all of which are phrases normally used in the dispensation of food, clothing and shelter to those unable to provide themselves with the same. These sections do not use phraseology consistent with an intent to govern the furnishing of medical care and hospital facilities.

In

County of Los Angeles vs. *Payne*
8 Cal. (2d) 563

the Pauper Act of 1933, now Sections 2500–2604 of the Welfare and Institutions Code, was under discussion. The case arose as a consequence of an appropriation of $1,000,000 by the Los Angeles County Board of Supervisors to provide for the direct relief of indigent persons. The Court held that

† See also "Migrant Vote" item on page 170.

* This opinion by Hartley Peart, Esq., general counsel of the California Medical Association, is a portion of a letter from Mr. Peart to Dr. George H. Kress, in reply to a request therefor. The subject discussed has an intimate relationship to county hospital administration throughout the State of California with special reference to rulings concerning the Los Angeles County Hospital. For other comment, see page 108.

For comment by a legal friend, on Mr. Peart's opinion, as here printed, see page 166.

the aid and relief of indigent residents of a county is a mandatory duty imposed upon counties by the statute in question, and that its purpose is to require counties to furnish food, shelter and necessary supplies to those persons who would otherwise be faced with want and starvation.

In

San Francisco vs. *Collins*
216 Cal. 187

the Pauper Act was likewise construed and it was there held that it required counties to furnish aid and relief to permanent paupers and to "every person coming within the terms of the statute dependent upon public assistance for the necessities of life."

Hence, it is clear that both the language of Sections 2500–2604 of the Welfare and Institutions Code and the judicial decisions construing them require the conclusion that they deal only with the furnishing of food, shelter and clothing to destitute people. Of course, it is no more than just that people in need of *relief* be required to reimburse the county if they subsequently become able so to do. For that reason the legislature has provided in Sections 2601–2604 for such reimbursement wherever possible.

As a matter of statutory construction, it must be noted that in the interpretation of statutes containing specific enumerations of things or conditions courts apply the maxim "expressio unius est exclusio alterius."

County of Modoc vs. *Spencer*
103 Cal. 498; 25 R. C. L., Sec. 229.

Hence, the enumeration of "public assistance," "public relief" and "support" exclude other matters, such as "medical care" and "hospitalization." The fact that medical care and hospitalization are fully covered elsewhere renders the application of the maxim even more certain.

There is one additional reason which impels me to disagree with Deputy County Counsel Vobayda's assertion that the Pauper Act includes medical care and hospital facilities; that is, the fact that determination of indigency under Sections 200–203 of the Welfare and Institutions Code (the sections specifically dealing with county hospitals) and under Section 2500 of the same code, may and often does require two entirely different standards. One is not entitled to county aid and relief under Sections 2500–2604 unless one is so poor, whatever the reason, that one cannot otherwise secure the very bare necessities of life, viz., food, clothing and shelter. On the other hand, one may be entitled to medical care and hospital facilities in the county hospital even though one is able to provide oneself with food, clothing and shelter. For example, let us assume that Mr. X is married, has three minor children, rents a home, earns $100 a month and has meager savings. Under the decision in

Goodall vs. *Brite*
11 Cal. App. (2d) 540,

if Mrs. X is severely injured, requiring a great deal of medical attention and several weeks' hospitalization, she may be an "indigent sick or dependent poor" person and so entitled to medical services and hospital care at county expense. At the same time, Mr. X cannot be said to be within the Pauper Act.

To sum up, it is my opinion that Sections 2600–2604 of the Welfare and Institutions Code, which authorize counties to secure from applicants for public assistance and support a transfer of such property as the applicants possess, together with a transfer of property that may be acquired in the future, only apply to persons receiving direct aid and relief under Section 2500 of the Welfare and Institutions Code. Further, it is also my opinion that persons who may be entitled to medical care and hospitalization at county expense under Sections 200–203 of the Welfare and Institutions Code may not be required to transfer to the county such property as they may possess (unless they are only partial indigents under the decision in *Goodall* vs. *Brite*, supra) and may not be required to transfer property acquired in the future unless, in addition to receiving medical care and hospitalization, they receive direct public support in the nature of food, clothing and shelter.

Very truly yours,

HARTLEY F. PEART.

June 20, 1938.
111 Sutter Street, San Francisco.

COMPONENT COUNTY MEDICAL SOCIETIES

KERN COUNTY

The Kern County Medical Society met at the Mercy Hospital on Thursday evening, May 19, with Dr. Harry Lange presiding. The minutes of the April meeting were approved as read. The secretary read the minutes of the Advisory Committee for furnishing care to migratory workers, headed by Dr. Karl Schaupp as Chairman. The coöperation of the members was requested in supplying the necessary data for the American Medical Association survey on the need for medical care. The secretary then gave a brief report on the Pasadena meeting of the California Medical Association. Dr. L. A. Packard, Councilor for the Third District, reported also on the meeting and on the action of the Council in electing Dr. George H. Kress to the combined offices of secretary-treasurer and editor for the California Medical Association.

Mr. Ben Read, Secretary of the California Public Health League, presented a report of the activities of that organization during the last meeting of the Legislature. Dr. Philip H. Pierson, Chief of the Stanford Tuberculosis Service at the San Francisco Hospital and President of the California Tuberculosis Association, spoke on *Problems in the Diagnosis and Treatment of Pulmonary Tuberculosis*. He mentioned the recent efforts in California to eradicate bovine tuberculosis which have been most successful. The rôle of the general practitioner in the early diagnosis of tuberculosis was stressed. Numerous chest roentgenograms were shown by Doctor Pierson to demonstrate various types of lesions.

The meeting was then adjourned and refreshments were served. C. S. COMPTON, *Secretary*.

MENDOCINO-LAKE COUNTY

For those who were unable to attend the Fort Bragg meeting June 25, 1938, the following is a summary of the evening's events:

The meeting was called to order at 8:30 p. m. Doctors Wolfe, Bowman, Lloyd, Wagner, Scudder, Barcklow, Cushman, Kirwin, Toller, Hill, Beil, Huntley, Huntley, Jr., and Smalley were present. Preceding was a "shore" dinner prepared under the direction of the Fort Bragg members. In the absence of President Craig, Dr. Royal Scudder presided.

Report on the Study of Medical Care showed that only about half the reports were in. The members of the committee, Doctors Kirwin, Craig, Smalley and Bowman were urged to contact the doctors in their districts and to help them get in their reports.

The correspondence from the California Society for the Promotion of Medical Research was discussed, especially by Doctor Cushman who explained that the Humane Pound Act was really a disguised antivivisectional bill and was aimed directly at the medical science. The action of the last meeting to have the members send in their contributions individually rather than for the Society to make a contribution was allowed to stand. Send your contribution to California Society for the Promotion of Medical Research, 369 Pine Street, Suite 325, San Francisco. . . .*

The County Charter was presented for consideration.

The following new members were voted upon and passed: Dr. George Loye, Dr. Joseph H. Smyth, Dr. J. E. Mooy, and Dr. George Barcklow.

Mr. Don Devin, a representative from the Lloyd Kahn and Company, Insurance Brokers, gave a long and interesting talk on the topic of medical insurance in general and the Lloyd's policy as written by them. Following this report there was considerable discussion by Doctor Cushman, Doctor Beil, and others.

The date of the next meeting was set for August 9, 1938, to be held somewhere in Lake County.

A motion was made, seconded, and unanimously passed to thank the Fort Bragg members for their entertainment. . . .* ROBERT B. SMALLEY, *Secretary*.

* Items here omitted have been placed on the docket of the Council for consideration and, pending decision by that body, will not be printed.

PLACER COUNTY

The Placer County Medical Society held its June meeting in the Children's Building at the Weimar Sanatorium Saturday evening, June 11, 1938. In the absence of President Lewis, Doctor Thoren, chief of staff of the Weimar Sanatorium, presided. There were present the following members and visitors:

Members: Doctors Thoren, Peeke, Padgett, March, Smith, Hirsch, Peers, P. D. Barnes, Atkinson, Lundegaard, Empey, Louis E. Jones, Eveleth, Flatley, and Vinks.

Visitors: Doctors Robert P. Weddle, J. A. Trolan, L. F. Seapey, and V. E. Gerke; and Mrs. Eveleth.

Following the reading of communications, the application for membership of S. F. Tobias, M.D., of Grass Valley, was read and he was unanimously elected to membership.

The application of Robert P. Weddle, M.D., of Roseville, was also read and Doctor Weddle was unanimously elected.

The applications of E. A. Casey, M.D., of Grass Valley, and of S. S. Kalman, M.D., of Roseville, were read for the first time.

The Secretary reported the death of Dr. W. A. Lavery, of Loyalton, for many years a member of the Placer County Medical Society.

Dr. L. W. Empey, of Roseville, delegate to the Pasadena meeting, reported on the proceedings of the House of Delegates and also on the Scientific Program and the Scientific Exhibit. On motion by Doctor Empey, seconded by Dr. Louis E. Jones, a Committee of Three on Malpractice Insurance was authorized.

The program of the evening was a *Symposium on Compression Therapy in the Treatment of Tuberculosis,* presented by the staff of the Weimar Joint Sanatorium.

Dr. J. A. Trolan presented a paper outlining the history and clarifying the terminology of surgical collapse therapy in pulmonary tuberculosis. His paper described the development of pneumothorax, closed and open intrapleural pneumolysis, pneumoperitoneum, phrenicectomy, and thoracoplasty. This introductory paper was followed by the demonstration of cases treated by the above therapy at Weimar Joint Sanatorium. An attempt was made to demonstrate not only the very best results but to cover the complications and unfavorable results which the various procedures entail.

Dr. E. S. Peeke presented cases of unilateral and bilateral pneumothorax; also cases showing the results of phrenicectomy alone, pneumoperitoneum alone, and phrenicectomy with pneumoperitoneum combined.

Dr. L. F. Seapy then took up the subject of the complications of pneumothorax, showing first cases of mixed tuberculosis empyema cured by aspiration, irrigation and oleothorax, and a case which did not respond to this conservative treatment nor to the Eloesser flap operation because of complicating bronchial fistula. The complication of adhesions holding a cavity open was next considered and the treatment by closed intrapleural pneumolysis shown. A case of failure with closed intrapleural pneumolysis, due to a non-collapsing blocked cavity, was demonstrated. The treatment of tuberculosis wherein pneumothorax has failed was next considered: the first subject being extrapleural pneumolysis. Two cases were shown: the space being maintained in one by wax and in the other by air. Cases demonstrating one and two stage upper posterior thoracoplasties were shown. The use of the bronchoscope in demonstrating the locale of tuberculosis and the application of bronchoscopy in discovering non-operable types was touched upon.

The technique of pneumothorax and pneumoperitoneum was then demonstrated before the group by Dr. J. A. Trolan.

Dr. Robert A. Peers, of Colfax, summarized the discussion and pointed out the advantage of showing the poor results of collapse therapy as well as those which ended in marked success.

The meeting then adjourned for refreshments.

ROBERT A. PEERS, *Secretary.*

SAN BERNARDINO COUNTY

The regular meeting of the San Bernardino County Medical Society was held at the San Bernardino County Charity Hospital, in San Bernardino, on Friday, June 3, 1938. The meeting was called to order by President Williams, at 8 p. m.

The following applications for membership were approved: Loleta Simpson, M.D.; Winston G. Nethery, M.D.; and Ralph N. Root, M.D.

The program of the evening was then given as follows:

The Management of Early and Prenatal Syphilis, as They Relate to Public Health Control, by Udo Wile, M.D., Professor of Dermatology and Syphilology, University of Michigan Medical School.

Following a round table discussion, Dr. W. W. Roblee, President of California Medical Association, spoke briefly.

The meeting adjourned at 10:30 p. m.

ARTHUR E. VARDEN, *Secretary.*

SAN MATEO COUNTY

The meeting of the Board of Directors of the San Mateo County Medical Society was held in the library of Mills Memorial Hospital at 8 p. m., on July 5, 1938.

The Secretary reported on a request he had received from Dr. Freda Meyerfeld that the County Medical Society supply her with a letter for the American Consul in Germany concerning her status as a physician in this country, in order to facilitate the entrance into America of her two nephews. This request was granted.

The Secretary read the final report of Doctor Warnshuis, past Secretary of the California Medical Association, and it was unanimously agreed to send Doctor Warnshuis a letter of appreciation of the good work he had done for the State Association and of the fine coöperation and assistance to the San Mateo County Medical Society which he had rendered.

The application of Dr. Norman D. Morrison, Jr., was submitted and the Board unanimously voted in favor of his admission to the Society.

The application of Dr. Maurice R. Oliva was submitted and the Board unanimously voted in favor of his admission to the Society.

The Secretary read a letter which was received from the San Mateo County Tuberculosis and Health Association concerning the Chest Clinic to be at the Community Hospital. The matter was referred to the Public Health Committee.

The Secretary mentioned a report which had been received from Doctor Murphy concerning the committee established by Doctor Gans to study the public health needs of the county. This letter was referred to the Public Relations Committee. . . .*

No further business was transacted and the meeting was adjourned.

J. GARWOOD BRIDGMAN, *Secretary.*

TULARE COUNTY

The Tulare County Medical Society held a regular meeting on Sunday, June 26, 1938, at Motley's Café, Visalia, California. Dr. E. R. Zumwalt presided.

This meeting was chiefly devoted to unfinished business of the current spring group of meetings. Many communications were read relative to the change in California Medical Association secretaryship. Because of our uninformed position no action was taken in this matter.

Dr. Howard W. Dueker of Lone Pine, Inyo County, was admitted to membership.

Mrs. Jewett, from the office that is furnishing aid to migratory workers through the Farm Security Administration, answered numerous questions of the various members. We were asked to appoint an advisory committee from the Tulare County Medical Society.

* Upon the advice of the legal counsel of the Association, and pending consideration by the Council of the Association, the item here omitted will not be printed.

Dr. Ellis Sox, newly appointed full time Tulare County Health Officer, outlined his proposed program and asked for our coöperation.

Following these short talks the meeting was turned over for general discussion relative to the County Hospital program. By show of hands nineteen of the twenty-seven members present signified their willingness to continue on the visiting staff.

A motion was made, seconded and carried that a committee of two be appointed to meet with the Board of Supervisors to determine the policy at the County Hospital for the coming year. At their discretion this committee is to recommend the appointment of a full time business manager to the Board. Dr. Austin Miller and Dr. I. H. Betts were named to this committee.

The following summation of suggestions were variously offered:

1. That a business manager be secured for the hospital.
2. That a new hospital staff board be appointed.
3. That a full time pharmacist be employed and a hospital formulary be worked out.

The following were present: Doctors Burton, Fillmore, A. Bond, Barber, N. Miller, Lipson, Neal, Weiss, A. Miller, Matthias, Zink, Watke, Falk, Guido, Betts, Zeller, Rosson, Ambrose, Preston, DeBusk, Seiberth, Zumwalt, Sox, Powell, Cronemiller, Ginsburg, P. Miller, Brigham, and Mrs. Jewett.

The meeting adjourned at 11 p. m.

KARL F. WEISS, *Secretary-Treasurer.*

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VENTURA COUNTY

The regular monthly meeting of the Ventura County Medical Society was held at the Saticoy Country Club on Tuesday, June 14, 1938.

There were seventeen members present. Guests included Doctors C. E. Ebert, Harker, Norton, Moore, Gilman, Bishop, and Witten.

Dr. C. E. Ebert, of Los Angeles, addressed the Society on *Pitfalls for the General Practitioner in the Practice of Urology.* This was followed by the business meeting.

Dr. Olive P. Walton, of the Ventura School for Girls, was unanimously elected to membership in the Society.

Announcement of the campaign for additional members by the Medical Society of California was made by the Secretary. Also, a brief report of the Pasadena Convention was given by the delegate. Doctor Smolt moved, and Doctor Mosher seconded, that the delegate withdraw funds to cover expenses in Pasadena. Carried.

After a brief discussion Doctor Shore moved that the Society go on record as favoring the formation of a Woman's Auxiliary in the county if the ladies are in favor of organizing such a unit. Seconded by Dr. D. G. Clark. Carried.

The program chairman was instructed to arrange a joint meeting with the ladies in the fall to discuss this problem.

The following were appointed as a committee to evaluate the facts gained from the recent survey on medical care: Dr. D. G. Clark, Chairman; Doctor Drace, and Doctor Nelson.

Dr. D. G. Clark moved that the July and August meetings be omitted. Seconded by Doctor Homer. Carried.

Meeting adjourned. A. A. MORRISON, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (25)

Fresno County

James Melvin Arthur — Charles S. Mitchell
F. Harold Downing — Omar U. Need

Mendocino-Lake County

G. T. Barcklow — J. Edward Mooy

San Bernardino County

J. Needham Martin — Loleta E. Simpson

San Diego County

Alla Margaret Aldrich — E. W. Cartwright
William T. Booth

San Francisco County

Paul G. Fuerstner — William Jue Poy
Alfred Goldman — Lewis F. Seapy
Oscar Herz — James W. Shumate
Harvard McNaught — Emily Woelz
Gerasim S. Nazarin

San Mateo County

W. C. Lynch

Stanislaus County

Robert Radcliff

Tulare County

Howard W. Dueker

Ventura County

Olive P. Walton

Yolo-Colusa-Glenn County

Virgil E. Hepp

Transferred (3)

Elmer M. Bingham, from Yolo-Colusa-Glenn County to San Luis Obispo County.

G. Kenneth Hargrove, from Monterey County to Alameda County.

Guido F. Norman, from Humboldt County to San Francisco County.

In Memoriam

Crabtree, Winston Churchill. Died at San Diego, July 14, 1938, age 36. Graduate of University of Michigan Medical School, Ann Arbor, 1928. Licensed in California in 1929. Doctor Crabtree was a member of the San Diego County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✝

Hanlon, Edward Russell. Died at Los Angeles, June 24, 1938, age 61. Graduate of Cooper Medical College, San Francisco, 1899. Licensed in California in 1900. Doctor Hanlon was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✝

Martin, John Perry. Died at Oakland, July 5, 1938, age 67. Graduate of the Eclectic Medical College, Los Angeles, 1903. Licensed in California in 1918. Doctor Martin was a member of the Alameda County Medical Association, the California Medical Association, and the American Medical Association.

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Merrill, Belle Ellingsen. Died at Coquille, Oregon, July 6, 1938, age 53. Graduate of the University of California Medical School, San Francisco, 1920, and licensed in California the same year. Doctor Merrill was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Swindt, Joseph Martin. Died at Olema, June 9, 1938, age 32. Graduate of Cornell University Medical College, Ithaca, 1932. Licensed in California in 1934. Doctor Swindt was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✝

Widney, Joseph Pomeroy. Died at Los Angeles, July 4, 1938, age 97. Graduate of University of California Medical School, 1866. Licensed in California in 1876. Doctor Widney was an Honorary member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

OBITUARY



Joseph Pomeroy Widney*
1841–1938

Dr. Joseph Pomeroy Widney was born in 1841, on December the 26th, in Miami County, Ohio, and he passed from this life July 4, 1938, in his ninety-seventh year.

These two important episodes in the life of every man were interspersed with minor phases of life which were outstanding, so far as their relation to the medical profession of the State of California is concerned.

Doctor Widney received his degree of Doctor of Medicine from the Toland Medical College, now the Medical Department of the University of California, in 1866; he was then 25 years of age. His passing on the national birthday of his country brings so forcibly to mind his military service for his country. He took an active part in two campaigns against the Apaches in 1867 and 1868. The outstanding feature of these campaigns was the long rides on an uncharted desert.

There is no doubt but that some of the books that Doctor Widney wrote in the later years of his life regarding the progress of civilization found a deep-rooted basis in his study of these primitive people on the desert, because the way in which they lived, and the way in which he was forced to live in order to preserve life under these primitive conditions as retold in these works, made a deep impression.

Three years after he entered practice in Los Angeles, Doctor Widney exhibited a faculty which has been characteristic and outstanding throughout his life. That is, he established the custom of order in his social relations which was a forerunner of his ethics and contact among men. He was the leading spirit among the founders of the Los Angeles County Medical Association when that organization came into existence, January 31, 1871. In a clear Spencerian hand, which might be described as copperplate, the by-laws of the Los Angeles County Medical Associate were inscribed in a minute book and adopted. It is interesting to note that this association was founded as an association and not as a society, and that it continued as such until about November, 1885. At that time, by-laws were adopted in which the name appeared to be a society, and it continued as such until new by-laws were adopted in 1890. At that time the older term was again used by the Los Angeles County Medical Association. This is rather interesting to note as our national organization was the only medical organization at that time using the term "association"; and only in recent years have the state societies and other county medical societies adopted the term association in lieu of the term "society."

In 1878, Doctor Widney was one of the incorporators of the Los Angeles County Medical Association. This, we believe, was the first medical association to be incorporated in the United States. As a corporation the organization never functioned actively until 1920. Since that time the organization has been completely functioning as a corporation, and as the legal representative of the California Medical Association.

Doctor Widney's founding in Los Angeles County of the University of Southern California in 1880, and of its first medical school in 1885, were clearly in line with that ethical effort to bring order and progress out of chaos where organization was lacking before.

Doctor Widney never compromised with himself, he never accepted a substitute when there was something better to be had. Throughout his entire life he was an exemplary personality in what he considered to be best adapted to the civilization in which he lived. By his mental and physical efforts he kept the organizations in which he was identified financially solvent, and he kept himself in his ninety-seven years, absolutely independent of the aid of others and left a good dependency when he passed.

Two thoughts outstanding in the last articles that Doctor Widney wrote five days before his death are quite characteristic of the man: Life and death, "The purpose of that drama is—The making of a man: not simply for time, but for eternity." He states the pleasures of Heaven lie in the thought, "I, too, am a sharer in the development of the world that is about me, a sharer with God, therefore forever sharing in the mind of the Supreme Maker of Law."

These are thoughts from the long life of a man who was experienced in the ways of the world and many of its trials and tribulations. In his later years he devoted much of his time to the study of the Scriptures. He spent his life doing good deeds among his fellow-men. He passed into eternal life leaving behind an inspiring record for those who must follow after him.

HARLAN SHOEMAKER, M. D.
JOSEPH M. KING, M. D.
JOHN W. SHUMAN, M. D.

+



Winston C. Crabtree
1902–1938

Winston C. Crabtree died July 14, 1938, of subacute bacterial endocarditis. He had been ill for about four months.

Doctor Crabtree was a native of Kentucky, having moved, with his parents, to San Diego at an early age. After attending school in San Diego he carried on his undergraduate work at Pomona College. Later he studied medicine at the University of Michigan, graduating in 1928. Following an interneship, he did postgraduate work in otolaryngology at the University of Iowa.

Doctor Crabtree returned to San Diego in 1931 and began the practice of his chosen specialty. His fine character and outstanding ability quickly made for him an ever widening circle of friends and admirers, both among his professional colleagues and among the public. His death is an irreparable loss, not only to his family and friends, but also to the medical profession which he served so well.

* Other photographs of the late Dr. Joseph P. Widney appeared in CALIFORNIA AND WESTERN MEDICINE in the following issues: Vol. 44, No. 4, April, 1936, page 292; Vol. 44, No. 5, May 1936, page 396; Vol. 46, No. 6, June, 1937, page 398.

Editorial comment in this issue appears on page 106.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION †

MRS. CLIFFORD A. WRIGHT.....President
MRS. FRED H. ZUMWALT.....Chairman on Publicity
MRS. FRANK H. RODIN....Assistant Chairman on Publicity

Woman's Auxiliary to the American Medical Association: 1938 Annual Session

The eighty-ninth annual session of the American Medical Association held in San Francisco from June 13 to June 17, 1938, was a success, both scientifically and socially.

The members and guests of the Woman's Auxiliary came from almost every state in the Union and California received them with open arms. San Francisco and her sister county auxiliaries had planned and given their best efforts for the entertainment and comfort of our guests. The whole city seemed to be in a holiday spirit with banners and signs of "Welcome A. M. A. Convention." Even the weatherman was kind and favored us with pleasant weather and glorious sunshine.

We are grateful to Mrs. J. C. Geiger, general chairman of arrangements. We sincerely thank the committee chairmen and their many assistants for the fine program of entertainment. A special vote of thanks to Mrs. John Humber and her assistants for the exquisite floral arrangements which were in evidence everywhere. The decorations added much to the pleasure of our guests, as evidenced by the expressions of admiration and appreciation.

The registration of members and guests, with headquarters at the Fairmont Hotel, started Sunday, June 12, under the able chairmanship of Mrs. Harry O. Hund. The gracious smiles and willing assistance of the many women who assisted Mrs. Hund helped to make our guests feel at home.

The National Board met on Monday morning, after which all gathered at an informal luncheon, convening again at 2 p. m.

In the afternoon there was a choice of sightseeing trips for members and guests. Many took advantage of the trip over the San Francisco-Oakland Bay Bridge to the University of California. They were there the guests of Alameda County Auxiliary for tea at the International House. Gracious hostesses made the afternoon very enjoyable.

Others took a tour of the City of San Francisco, visiting Golden Gate Park, the Japanese Tea Garden, Fleishhacker Pool and Zoo, driving along the shores of the Pacific Ocean, through the Presidio, over the Marina Boulevard to Fisherman's Wharf, ending with a trip through our famous Chinatown. Those who did not care to go on sightseeing trips, played golf, tennis, rode horseback over our beautiful bridal paths or went swimming.

A Chinese dinner planned for the evening, was well attended. Those who dined in Chinatown will tell you that they never had more fun. Have you ever eaten the native Chinese food? It is as good as it is unusual. After dinner the group visited the Chinese Theatre, its dramas and comedies presented in the manner as that of their ancestors of centuries ago. The Joss Houses were very interesting, as was the telephone exchange. The Chinese girl operators must memorize some twenty-five hundred numbers in order to give satisfactory service.

On Tuesday we started very early. Several hundred women attended the Southern breakfast honoring Mrs. Augustus S. Keck. Early morning is so delightful in San Francisco and everyone seemed in very good spirits. If we did give up some of our beauty sleep to get to this breakfast on time, we were well repaid by the inspiring talks by Doctors J. H. J. Upham, Irvin Abell and A. T. McCormick, and the brilliant and witty response by Mrs. Keck.

The tables looked so pretty with their novel decorations of fruit and flowers. The speakers' table was exceptionally beautiful. It whetted our appetites. Seats were not reserved, so we sat where we pleased. What an experience! To be able to talk to women from five different states seated around one breakfast table. After breakfast everyone dashed off to the formal opening of the general meeting of the Woman's Auxiliary to the American Medical Association.

At noon more than a thousand women gathered for a boat trip and luncheon to be served on Treasure Island, where one got a preview of the 1939 World's Fair. A hill-billy orchestra entertained during luncheon. The excursion took the guests around the beautiful San Francisco Bay, viewing our magnificent bridges, Alcatraz Island, up the Estuary in Oakland and to many other places of interest.

The general session of the American Medical Association convened in the evening in the Memorial Opera House. Hon. Angelo Rossi, mayor of San Francisco, welcomed the august body of the American Medical Association. Musical selections, rendered during interludes, made the meeting enjoyable and interesting.

The Aloha luncheon, honoring Mrs. Charles C. Tomlinson of Omaha, Nebraska, took place on Wednesday. Mrs. Augustus S. Keck presided, and introduced Mrs. Tomlinson, the new president of the Woman's Auxiliary to the American Medical Association.

Again the table decorations were most beautiful. The speakers' table was a riot of delicate shades of the exquisite tuberous begonia and foliage. These were particularly interesting to the women from distant states, where these blossoms do not grow.

Doctors Walter Donaldson and Irvin Abell were the guest speakers. They stressed the importance of the woman's auxiliaries to the medical associations and the need for every doctor's wife to be armed with knowledge to help guard the high standards of scientific medicine and to help combat subversive legislation and quackery. The women were becoming more and more useful as an adjunct to the medical societies in the communities where they are organized, we were told.

The closing ceremony was most beautiful and awe-inspiring. An old Polynesian Lei ceremony was adapted for this purpose, through the courtesy of Mrs. A. T. Newcomb of Pasadena. To the soft music of an Hawaiian orchestra, Mrs. William Henry Sargent of Oakland recited the commentary to this Polynesian rite.

Thus ended the meeting of the Woman's Auxiliary to the American Medical Association for 1938.

* * *

The home of the San Francisco County Medical Society is housed in one of San Francisco's old residences, which adapted itself so conveniently for the lovely reception held Wednesday evening for Auxiliary members and doctors' wives.

Over four hundred women gathered to enjoy the evening, which offered music, a fashion show and refreshments.

This was a background for the harp selections rendered by the talented Miss Ann Everingham, daughter of an Alameda Auxiliary member. Attractive manikins displayed beautiful summer costumes through the courtesy of I. Magnin & Company. Miss Helen Zumwalt, gifted daughter of a San Francisco member, sang Viennese songs, dressed in picturesque Viennese costume. A bridal party, gorgeously gowned, completed the fashion show. Eva Grunenger Gibson, our own dear president of the San Francisco County Auxiliary, closed a perfect evening with vocal selections. Miss Gladys Steele accompanied Mrs. Gibson and Miss Zumwalt.

Santa Clara and San Mateo County auxiliaries were hostesses on Thursday for lunch at the Allied Arts in Palo Alto.

The guests started on the motor trip from San Francisco at 11 o'clock, traveling by way of the Skyline Boulevard, visiting Stanford University and reaching the Allied Arts for lunch. They returned over the Bay Shore Highway.

After lunch another scenic tour was taken over the Golden Gate Bridge into Marin County, visiting Muir Woods and Mt. Tamalpais.

†As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Frank H. Rodin, Assistant Chairman of the Publicity and Publications Committee, 2457 Bay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Rodin and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

One of the most interesting features of the Auxiliary convention were the exhibits presenting outstanding work and interesting activities sent in by auxiliaries from nearly every state in the Union. We may, indeed, be proud of such an active program as these exhibits presented. They were all so fine, one could not choose; each seemed to vie with the other for importance. In this room a musical program was given on Thursday afternoon. Mrs. Ily R. Beir of Atlantic City, New Jersey, is to be congratulated on the fine work she has done as national chairman of this department.

The closing events of the convention were the "Bring your husband" dinner held at the Fairmont Hotel and the President's reception and ball that followed at the Palace Hotel.

Mrs. Otis Floyd Lampson of Seattle, Washington, was the hostess at the dinner and Mrs. Harold G. Trimble of Oakland was chairman of arrangements.

On entering the dining room one's breath was taken away by the picturesque arrangement of the decorations. Mrs. John Humber and her committee seemed to have performed a miracle with the arrangement of the flowers. Tables were set for parties of eight and ten. The flowers were white, artistically set in shining copper bowls. The speaker's table was beautifully decorated with delicate white calla lilies in gleaming high brass containers and large candelabra with many white candles.

The Doctors and Dentists' Orchestra of Alameda County furnished the music during dinner.

Unknown to the committee on decorations, Dr. and Mrs. Charles C. Tomlinson were celebrating the twenty-ninth anniversary of their wedding, so the bridal appearance of the dining room fitted perfectly into the scheme of events. Mrs. Trimble, after being introduced by Mrs. Lampson, extended congratulations and best wishes, and presented the happy couple with an old-fashioned bouquet of gardenias.

In closing, Mrs. Trimble drew a beautiful word picture of the romantic parting when one leaves the Hawaiian Islands, saying: "Aloha, until you and I meet again next year."

The President's reception and ball also had its very pretty settings, and everyone enjoyed the gracious hospitality, music and dancing.

* * *

A few words about the convention meetings of the National Auxiliary.

The first general session of the Auxiliary was held on Tuesday morning at the Fairmont Hotel. Mrs. Augustus S. Keck presided in her dignified and charming manner. Mrs. J. C. Geiger, general chairman, was introduced and made the necessary announcements. The invocation was given by Rev. George H. B. Wright, Cannon, Grace Cathedral.

The address of welcome was given by our own State President, Mrs. Clifford A. Wright of Los Angeles, as follows:

Welcome, members and friends of the Woman's Auxiliary to the American Medical Association! California Auxiliary members extend greetings and offer the hospitality of the West—a hospitality which knows no bounds.

To reach this most western city on the shores of the great Pacific, you have crossed deserts, mountains and water. Some have come by automobile or boat, others by train, and there were those who took that still almost unbelievable mode of rapid transportation, the airplane. We hope you enjoy your visit and that the benefits and pleasure you receive will compensate you for the distances you have traveled and for the inconveniences that may have been yours.

Romantic, historic old San Francisco is teeming with the traditions of an early settlement on the shores of one of the world's most marvelous natural harbors. The Gold Rush days of California and the spending of the wealth of Nevada silver added much to the development of this part of the country. May you partake of the old and the new that surround you in this, your hostess city.

The East is East; the West is West; the two have met on common ground. Renewing old friendships, forming new ones; loyal to our husbands and to the medical profession to which they pledged their lives. The medical men are the life guards of the world.

You have returned to the place of your birth, triumphant. California is proud of you, your growth and accomplishments. Again may I say welcome. May you find in the West the glorious Golden West, the share of joy and happiness that we know is here for you.

The response was given by Mrs. Rollo K. Packard of Illinois, as follows:

It is a pleasure to respond on behalf of the Woman's Auxiliary to the American Medical Association to the welcome just extended, and to express our appreciation for the splendid work of the various committees.

It seems quite fortunate both for the old and the new members here in attendance that, in these more or less troubled times for all mankind, we are privileged to come here to the scenic, colorful and natural beauty of California and enjoy the hospitality of this great city and its great people.

It has been my good fortune to have visited this great state several times and to have motored over the highways and byways of a considerable part of it. I shall not attempt to describe it, although more gifted have tried. Really, the Californians cannot describe it.

I only hope that you will find time to linger on a few days or weeks and enjoy the varied interests that await you.

You must know California's history, its struggles and its determinations. You must see it by sunrise, by sunset and by moonlight, and then you will want to see it all over again, and finally you will want to come here to live."

The "In Memoriam" was very beautifully and spiritually given by Mrs. Daniel J. Swan of Flushing, New York. Mr. Frank Houser played soft melodies on his violin during the roll call.

The chairmen of convention committees reported: Mrs. Harry O. Hund, credentials and registrations; Mrs. Charles Rayburn, convention rules; Mrs. Hobart Rogers, resolutions.

The president, Mrs. Keck, read her message.

The reports of the corresponding secretary, recording secretary, treasurer, auditor and standing committees followed.

Mrs. Charles C. Tomlinson, president-elect, of Omaha, Nebraska, was introduced by Mrs. Keck.

After further announcements the meeting was adjourned to convene again the following morning.

Wednesday morning: Mrs. Keck presided. The minutes were read and the following reports were made: Mrs. J. C. Geiger, convention committees; Mrs. Harry O. Hund, credentials and registrations; Mrs. Hobart Rogers, resolutions.

The state presidents read some very glowing reports of the activities of their auxiliaries which were very interesting and inspiring.

The nominating committee presented the names proposed for election. There being no nominations from the floor, the officers were elected as presented by the nominating committee.

In the absence of Mrs. Arthur B. McGlothlan, Mrs. James F. Percy of Los Angeles installed the newly elected officers with a very inspiring ceremony.

After the reading of the courtesy resolutions, and the minutes, the official meeting of the Woman's Auxiliary to the American Medical Association came to an end and was adjourned.

The following very interesting and informative conferences were held on Wednesday afternoon under the leadership of the various chairmen as follows: Public relations and health education, Mrs. A. Haines Lippincott; program, Mrs. V. E. Holcombe; Hygeia, Mrs. James Lester.

MRS. FRANK H. RODIN.

Re: Washington, D. C., Press Dispatches.—"The proposition to socialize the medical profession is in line with a number of other things designed to come under government control in these later days. When people are regimented to summon medical care through government-politico dictation they won't care to get well, for next thing the government will attempt to administer the last sacrament and conduct the funeral."—*Reseda News.*

"From his experiments in human learning Thorndike has concluded—'Learning without interest of some sort does not occur in any appreciable degree.' Therefore it is most ineffective to bombard the population with health facts or urge them to improve their practices if they have no interest in the facts or in changing their habits."—*The Health Officer.*

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, St. Louis, Missouri (date to be announced later). Olin West, M.D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

California Medical Association, Hotel Del Monte, May 1 to 4, 1939. George H. Kress, M.D., Secretary, 450 Sutter Street, San Francisco.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of August is as follows:

Thursday, August 4—KECA, 11:00 a. m., The Road to Health.
Saturday, August 6—KFI, 9:00 a. m., The Road to Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, August 11—KECA, 11:00 a. m., The Road to Health.
Saturday, August 13—KFI 9:00 a. m., The Road to Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, August 18—KECA, 11:00 a. m., The Road to Health.
Saturday, August 20—KFI, 9:00 a. m., The Road to Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, August 25—KECA, 11:00 a. m., The Road to Health.
Saturday, August 27—KFI, 9:00 a. m., The Road to Health; KFAC, 11:30 a. m., Your Doctor and You.

1938 Rural Health Conservation Contest Announced. The Chamber of Commerce of the United States and the American Public Health Association have announced the 1938 Rural Health Conservation Contest, the fifth of a series of competitions designed to further the development of sound rural public health work, and to stimulate needed improvement in community health services.

Any district or county health unit providing whole-time health services is eligible to participate in the contest. Whole-time health departments of California have, during past years, enrolled in these contests, and some of them have succeeded in winning awards. It is hoped that a large number of California counties will enter into the 1938 contest.

Some of the advantages to local health units that may take part are stated as follows:

1. It provides a means (the public health committee) of bringing about a substantial, sustained and intelligent lay interest in public health.

2. It promotes the keeping of adequate comparable records which can be used in measuring progress.

3. Through the inclusion of all agencies, groups and individuals engaged in the public health work the contest:

(a) Presents a clearer and more complete picture of the community-wide public health program than was, perhaps, heretofore available.

(b) Tends to develop a community-wide esprit de corps and public health consciousness.

(c) Encourages the more effective use and integration of all the community's facilities for public health betterment.

(d) Through giving definite credit for work done by private practitioners of medicine and dentistry encourages the increasing practice of preventive measures by these two all-important groups.

*County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Western Division of the American Society for the Control of Venereal Diseases Organized.—Following some months of consideration, the American Society for Control of Venereal Diseases, organized last year, has merged with the American Social Hygiene Association. Activities will be promoted in the Pacific Coast and Mountain States through a *Western Division Office* under the direction of a western advisory committee including Dr. Russell V. Lee, President Ray Lyman Wilbur, Dr. William P. Shepard, Dr. Thomas A. Storey, and Ray Smith. W. F. Higby, who has long been interested and active in social hygiene work, and is an experienced administrator, will be responsible for executive direction. Alan Blanchard, a recent recruit to social hygiene, will work at the educational and public information program. Mrs. Marion Simonson, American Social Hygiene Association field representative, who has been on the West Coast since March, will remain until the end of June to work with the new staff, look after exhibits and confer with delegates at meetings of the American Medical Association, the Western Division of the American Public Health Association, the United States Junior Chamber of Commerce, and the National Conference of Social Work.

Western friends and members we know will welcome this new plan and we hope will make full use of the facilities available. Address of the new office is 45 Second Street, San Francisco, California.

American Public Health Association.—The preliminary program of the scientific sessions of the sixty-seventh annual meeting will be held in Kansas City, Mo., October 25 to 28, with more than 3,000 professional public health workers in attendance.

The program comprises fifty morning and afternoon meetings arranged by the ten sections of the Association, which are: Health Officers, Laboratory, Vital Statistics, Public Health Engineering, Industrial Hygiene, Food and Nutrition, Child Hygiene, Public Health Education, Public Health Nursing, Epidemiology.

Special sessions are planned on Public Health Aspects of Medical Care, Oral Hygiene, Professional Education and Diphtheria Immunization. A public meeting under the auspices of the local committee is scheduled for Wednesday evening, October 26, with Dr. E. V. McCollum discussing Milk Pasteurization and Dr. Arthur T. McCormack on New Responsibilities of the Health Officer.

There will be symposia on industrial hygiene administration, venereal disease control, laboratory diagnostic methods, expanding responsibilities in public health engineering, maternal and child health, frozen desserts, industrial hazards, water and sewage, typhoid fever, the next steps in school health services, milk and dairy products and many other important subjects.

A few of the well known names on the program are as follows: Colonel A. Parker Hitchens, Dr. Earle G. Brown, Dr. Haven Emerson, Surgeon-General Thomas Parran, Joel I. Connolly, Dr. Nina Simmonds, Dr. Karl F. Meyer, Dr. Walter Clarke, Professor C.-E. A. Winslow, Dr. George C. Ruhland, Dr. William A. Sawyer, Dr. Walter H. Eddy, Dr. Frank G. Boudreau, Sol Pincus, Dr. Martha M. Eliot, Dr. Abel Wolman, Dr. Robert S. Breed and Dr. Felix J. Underwood.

More than 300 papers and committee reports will be presented during the four-day meeting. They will cover the what, how and why of modern public health practice in the United States.

The preliminary program is printed in full in the August issue of the *American Journal of Public Health*, published by the American Public Health Association at 50 West Fiftieth Street, New York, N. Y.

Postgraduate Medical Courses for Practicing Physicians: Stanford University School of Medicine.—Stanford University School of Medicine, in coöperation with the San Francisco Department of Public Health and the San Francisco Hospital, announces a series of postgraduate courses to be given September 12-16, 1938, inclusive. The registration fee is $25. Additional fees of $10 will be made to cover the cost of materials used in Course 8, Surgical Anatomy and Operative Technique, and in Course 10, Otorhinolaryngology. Each physician may take a morning and an afternoon course and all physicians should attend the evening general meetings. Registration closes September 6, 1938. Applications for registration in these courses should be mailed to the Dean, Stanford University School of Medicine, 2398 Sacramento Street, San Francisco, not later than September 6. Outlines of the courses follow:

MORNING COURSES

Monday, Tuesday, Wednesday, Thursday and Friday, 8:30–12:00

Course 1—Traumatic Injuries, Acute Abdominal Emergencies and Fractures (At San Francisco Hospital)

This course will deal with the handling of abdominal and other emergencies, traumatic injuries, and the diagnosis and treatment of fractures.

Course by Doctors J. W. Cline, Delbert Hand, Nelson Howard, Donald King, Carleton Mathewson, J. M. Meherin, E. J. Morrissey, W. L. Rogers and E. B. Towne.

Course 2—Gynecology

This course will deal exclusively with gynecologic problems. Medical gynecology will be stressed. This will include the treatment of cervicitis, trichomonas infection, sterility, urinary infections, preparation and use of pessaries. Some time will be devoted to the discussion of surgical indications and surgical methods. Endocrine problems dealing with menstrual disorders will be included if desired by the majority of applicants.

Course by Doctors L. A. Emge, C. F. Fluhmann, A. V. Pettit, K. L. Schaupp, H. A. Stephenson and Hans von Geldern

Course 3—Ward Rounds in Medicine (Two sections limited to fifteen physicians in each section)

This course will consist of rounds in the medical wards, with conferences and demonstration of patients presenting problems in internal medicine, to be followed by discussions of the specific diagnostic procedures and therapy. Clinico-pathological conferences will be a part of this course.

Section at Lane Hospital by Doctors C. W. Barnett, A. L. Bloomfield, Garnet Cheney, William Dock, E. F. Holman, G. S. Johnson, J. K. Lewis, G. S. Mirick, R. R. Newell, W. H. Northway and D. A. Rytand.

Section at San Francisco Hospital by Doctors George D. Barnett, D. K. Burnham, A. J. Cox, L. H. Garland, H. P. Hill, Lovell Langstroth, Carleton Mathewson, Carol McKenney, J. M. Read, Robert Shelton, C. F. Sweigert, Edgar Wayburn, D. L. Wilbur and J. M. Wolfsohn.

Course 4—Diseases of the Chest

This course will review diseases of the chest by demonstrations and clinics, including history, physical examination, differential diagnosis and treatment, together with an x-ray, pathological, and medical-surgical symposia. The problem of tuberculosis as it involves the general practitioner will be stressed.

Course by Doctors W. G. Burkhard, Leo Eloesser, E. F. Holman, R. R. Newell, P. H. Pierson, Martin Seid and D. A. Wood.

AFTERNOON COURSES

Monday, Tuesday, Wednesday, Thursday and Friday, 1:30–5:00

Course 5—The Practical Management of Hypertension and Nephritis in the Doctor's Office

Information derived from ambulatory patients, in conjunction with the results of new laboratory methods designed for use in the doctor's office, will be used for the discussion of diagnosis and as a basis for the planning of treatment.

Course by Doctors Thomas Addis and D. A. Rytand.

Course 6—Pediatrics

This course will review four general groups of pediatric problems: (1) the care of normal infants and children, including infant feeding; (2) the prevention of disease, including deficiency diseases and methods of immunization; (3) the commoner disorders and diseases of childhood, including the communicable diseases; (4) disturbances of mind and behavior, and methods of child guidance. Surgical problems will also be discussed.

Course by Doctors L. R. Chandler, L. B. Dickey, H. K. Faber, D. C. Marshall, J. J. Miller, J. C. Parott, M. I. Preston, A. P. Purdy and R. P. Seitz.

Course 7—Proctology

This course will review the common lesions of the large bowel, rectum and anal canal, including technique of examination, methods of office treatment, operative indications and technique, pathology, differential diagnosis, etc.

Course by Dr. Robert Scarborough.

Course 8—Surgical Anatomy and Operative Technique (Limited to twenty-four physicians)

This course will be conducted in the dissecting room and the experimental laboratories; will include dissection of special regions and instruction and practice in the technique of various operations.

An additional fee of $10 will be made to cover the cost of material used in this course.

Course by Doctors Donald King and G. W. Nagel.

COURSES FOR SPECIALISTS

Monday, Tuesday, Wednesday, Thursday and Friday Mornings, 9:00–12:00; Afternoons, 2:00–5:00

Course 9—Anesthesiology (Limited to six physicians. Only those whose practice already includes anesthesiology will be eligible to this course)

This course will review preliminary medication; the newer anesthetic agents; the rectal, intravenous, and inhalation methods of administration; spinal anesthesia.

Course by Doctors Emelie Andersen, E. H. Case, Adena Dutton, W. Golenternek, W. B. Neff, L. A. Rethwilm, J. A. Stiles and L. Wright.

Course 10—Otorhinolaryngology (For specialists only; general practitioners are not eligible for this course)

This course will cover anatomy, physiology, pathology; practical operative work on cadavers; treatment of diseases of the ear, nose, and throat.

An additional fee of $10 will be charged to cover the cost of anatomical materials used in this course.

Course by Doctors R. E. Ashley, J. A. Bacher, C. B. Cowan, S. v. Christierson, F. D. Fellows, W. M. Fitzhugh, H. A. Fletcher, H. B. Graham, H. Y. McNaught, R. C. McNaught, P. J. Moses, A. G. Rawlins and E. C. Sewall.

GENERAL MEETINGS

Tuesday, Wednesday and Thursday Evenings, Lane Hall, 8:00–10:00 o'clock

Meeting 1. Tuesday evening, 8:00–10:00 o'clock

Surgical Pathology; Clinico-pathological Conferences

Dr. D. A. Wood

Meeting 2. Wednesday evening, 8:00–10:00 o'clock

Relation of Sex Hormones to Cancer

Dr. L. A. Emge

Disease of the Thyroid Gland

Doctors E. F. Holman and D. L. Wilbur

Meeting 3. Thursday evening, 8:00–10:00 o'clock

Diagnosis and Modern Treatment of Common Dermatoses

Doctors H. E. Alderson and M. T.-R. Maynard

Doctor Reed to Speak on World Health at Amsterdam.—A sort of diagnosis of the present health status of the world at large is to be presented to the Third International Congress of Tropical Medicine and Malaria in Amsterdam on September 25, by Dr. Alfred C. Reed, president-elect of the American Society of Tropical Medicine and member of the faculty of the Hooper Foundation for Medical Research in the University of California.

The effect of wars, widespread soil erosion, shifting economic conditions, natural disasters, transportation breakdown, epidemics and related conditions on the health of the human race is being outlined in Doctor Reed's Amsterdam paper.

Previous to attending the Congress at Amsterdam, Doctor Reed will visit the London School of Tropical Medicine and various other centers of the same type on the Continent. Doctor Reed's investigations into world health conditions will take him to Beirut, Damascus, Jerusalem, Cairo, Rhodes, Athens, Italy, France, Stockholm and Copenhagen.

Doctor Reed will return by way of Oklahoma City for the meeting of the American Society of Tropical Medicine, November 14-17. Doctor Reed will assume the presidency of the Society at this meeting.

U. C. Extension Course on Foods.—Miss Nina Simmonds, Ph. D., lecturer in medicine, and research associate in dentistry, University of California, will conduct a University Extension course in foods and nutrition this fall, according to a recent announcement. The course has been planned for dentists, dental hygienists, physicians, public health nurses, social case workers, and others interested in modern developments of nutrition. The tentative date for the opening of the course is Wednesday, September 21, at 8 p. m., 540 Powell Street, San Francisco.

California Hospital, Los Angeles, Holds Annual Jinks.—The announcement of the annual outing meeting of the attending staff of the California Hospital of Los Angeles, an institution founded in the nineties by the late Dr. Walter Lindley and other leaders in the old College of Medicine of the University of Southern California, gave the following interesting information:

Time—July 23, from 2:00 p. m. until——
Place—Uplifter's Ranch, Santa Monica.
Purpose—Good, wholesome, frolicking fun.
Competitive Sports—Baseball, sprinting events, horseshoe pitching, African golf, bridge, special internes' race—many other novel stunts and contests as usual.
Dinner—Delicious barbecued steaks and fixings.
Floor Show—Guarantee no copyright infringement, new talent (completely disguised), new everything.
Post mortem session at the club house.

American Congress of Physical Therapy.—The seventeenth annual scientific and clinical session of the American Congress of Physical Therapy will be held coöperatively with the twenty-second annual convention of the American Occupational Therapy Association, September 12, 13, 14 and 15, 1938, at the Palmer House, Chicago. Preceding these sessions, the Congress will conduct an intensive instruction seminar in physical therapy for physicians and technicians—September 7, 8, 9 and 10.

The convention proper will have numerous special program features, a variety of papers and addresses, clinical conferences, round table talks, and extensive scientific and technical exhibits.

The instruction seminar should prove of unusual interest to everyone interested in the fundamentals and in the newer advances in physical therapy. The faculty will be comprised of experienced teachers and clinicians; every subject in the physical therapy field will be covered. Information concerning the convention and the instruction seminar may be obtained by addressing the American Congress of Physical Therapy, 30 North Michigan Avenue, Chicago.

American College of Surgeons.—A clinical congress of the American College of Surgeons, founded by surgeons of the United States and Canada in 1913, will be held during the twenty-eighth annual session, New York, October 17-21, 1938.

The surgeons of that great medical center, under the leadership of representative committees, are preparing a five-day clinical program that will provide a complete showing of their clinical activities in all departments of surgery. An outline of the clinical program is published in the June Bulletin of the College and the July number of "Surgery, Gynecology and Obstetrics." It will be noted that the clinical schedules are arranged by specialties, and so correlated that the visiting surgeon may plan to devote his time continuously to those special subjects in which he is most interested.

A symposium on "Graduate Training for Surgery and the Surgical Specialties" will feature the opening session of the Congress on Monday morning. At the presidential meeting and convocation, on Monday evening, the retiring president, Dr. Frederic A. Besley, will deliver the presidential address. This will be followed by the inauguration of the new officers and the conferring of fellowships upon the 1938 class of initiates. On succeeding evenings scientific papers on topics of timely importance will be presented by American and Canadian surgeons and distinguished visitors from abroad.

Outstanding features of the Congress program are: Conferences and symposia on fractures, cancer, obstetrics and gynecology, genito-urinary surgery, and traumatic surgery. Midday round-table conferences will provide a forum for the open discussion of many important surgical subjects.

American Association for the Study of Goiter.—The annual meeting of the American Association for the Study of Goiter for this year will be held in Washington, D. C., September 12, 13 and 14 in conjunction with the Third International Goiter Conference. A final program will be available at the time of the meeting and will be distributed to all attending physicians at the registration desk on the morning of September 12. For information, write to W. Blair Mosser, M.D., Corresponding Secretary, Kane, Pa.

The American College of Physicians.—The twenty-third annual session of the American College of Physicians will be held in New Orleans, with general headquarters at the Municipal Auditorium, March 27-31, 1939. Dr. William J. Kerr of San Francisco is president of the college, and will have charge of the program of general scientific sessions. Dr. John H. Musser of New Orleans has been appointed general chairman of the session, and will be in charge of the program of clinics and demonstrations in the hospitals and medical schools, and of the programs of round table discussions to be conducted at the headquarters.

Excerpt from a Letter Received from an Attorney Friend, After Perusal of Legal Counsel Peart's Opinion.*— . . . "From such knowledge as I have of the (Los Angeles County Hospital) situation, however, I cannot help feeling that Mr. Peart's opinion is correct. I might add, not as a matter of law but as a matter of personal opinion, that any law that permits a state, county, or city to hound anybody and everybody who has ever had to seek public relief, either for "support" or for hospital service, if that once unfortunate person is ever able to acquire property or earn a livelihood not exempt from attachment or garnishment, is a brutal law. Certainly a law of that kind, if needed at all, should be limited so as to permit the state, county, or city to recoup only from those who subsequently acquire wealth or earnings sufficient to justify that procedure."

Big Health Museum May Spring from 1939 Exposition.—A permanent public health museum, perhaps the first in the United States, which would reveal many of the present secrets of plague suppression, and the campaigns against such epidemics as typhoid, tuberculosis and diphtheria, will be one of the principal developments of the Golden Gate International Exposition, if plans now being drawn up by the American Public Health Association finally materialize. It is hoped to locate the museum somewhere in the San Francisco Bay region, possibly in San Francisco. It will be so set up that displays of specimens and procedures may be sent to any point in the West and to the three Canadian provinces claiming membership in the Association.

Preliminary plans for the museum were discussed at the tenth annual meeting of the Association in Portland, June 6 to 8, on which occasion more than 500 public health officers from all parts of the country and from the provinces of British Columbia, Saskatchewan and Alberta, discussed the health needs of the individuals and communities under their jurisdiction. The plans that public health groups are making to exhibit at the big San Francisco Exposition were compared and detailed, and the unanimous opinion was reached that this fine array should be consolidated into a single museum when the Exposition is over. Committees were appointed to draw up a plan. It is understood that eastern interests are considering a like museum to house the public health displays at the New York world's fair.

The western branch of the Association is presided over by Dean Guy F. Millberry of the University of California College of Dentistry here. This branch includes the eleven western states, the three Canadian provinces mentioned, and Alaska, and has jurisdiction over the public health activities of 16,000,000 people. At the Portland meeting, a paper by Dr. Karl F. Meyer, director of the Hooper Foundation of Medical Research of the University, described the ravages of sylvatic plague now sweeping through the rodent populations of the West. The Association plans to hold its 1939 meeting in or near San Francisco.

* Opinion of Mr. Peart appears on page 157.

Solano and Sonoma Organize Full-Time Units.—The boards of supervisors of both Solano and Sonoma counties have organized their county health departments into full-time units, effective July 1, 1938. Both units will include all unincorporated territory within their respective boundaries.

Dr. A. Frank Brewer of Berkeley has been appointed health officer of Solano County. Two public health nurses, a sanitary inspector, and a clerk, all employed full time, will comprise the staff. The organization of the Sonoma County unit is in process of completion.

With these two new units, there are now twenty-four counties of California, the health departments of which are conducted by employees who devote their whole time to the duties of their respective offices. These counties are: Alameda, Contra Costa, Fresno, Imperial, Kern, Los Angeles, Madera, Monterey, Orange, Riverside, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Cruz, Solano, Sonoma, Stanislaus, Tulare, Ventura, Yolo.

Venereal Disease Prevention: Federal Appropriations.—Venereal diseases were given fresh recognition as a national problem when both Houses of Congress recently passed the La Follette-Bulwinkle bill authorizing federal aid to the states for the prevention and control of these diseases. With President Roosevelt's signature on May 25, this bill became a law authorizing appropriations to be made for each of the fiscal years 1939, 1940 and 1941 of three, five and seven million dollars, respectively, and such amounts annually thereafter as may be necessary. The next step necessary was appropriation by Congress of the first $3,000,000 for the year beginning July 1, 1938. This appropriation was finally included in the second deficiency bill and went to the Conference Committee of the House and Senate June 15, was reported favorably, voted, and sent to the President June 16. Grants will be made to the states, territories and insular possessions on the basis of population, prevalence of venereal diseases and need for federal assistance. State health officers and the U. S. Public Health Service will jointly decide upon what projects the grants will be spent.

A nation-wide survey conducted last month by the American Institute of Public Opinion showed the consensus overwhelmingly in favor of such a program of federal aid. Throughout the country 86 per cent of those questioned said "Yes" to the query: "Do you think Congress should appropriate money to aid states in fighting venereal disease?"

Pacific Coast Survey of Safety Laws and Orders.—Safety laws and orders of eleven western states are the subject of a survey to be made by a new WPA project at a cost of $10,000. This project, just approved by the Federal Government at Washington, will be directed by C. H. Fry, chief of the Industrial Accident Commission of California, and interim chairman of the Western Safety Conference to be held in Los Angeles, September 12-16.

Under the provisions of the project, twenty-seven experienced safety engineers and attorneys will unite in recodifying all safety laws and orders for the prevention of accidents in traffic, the home and in industrial vocations.

Aiding in the movement are the states of California, Oregon, Washington, Idaho, Montana, Wyoming, Colorado, Utah, Nevada, Arizona and New Mexico, which are subjects of the survey, as well as British Columbia, Alaska, Hawaii and Lower California.

Uniform safety laws have long been the dream of safety engineers and others interested in a lowering of the terrific loss of life from all public and industrial causes. Plans have been made for a series of conferences at the Western Safety Conference which are expected to have a far-reaching effect.

It is expected that the conclusions reached by the several thousand safety experts attending the conference will be of great value in the deliberations of the experts making the survey, many of whom will take part in the conference.

Industrial accidents will receive special consideration, as will traffic hazards caused by the difference in the traffic laws of the several states. This phase of accident prevention is of special importance to states visited annually by thousands of tourists.

International Medical Postgraduate Courses in Berlin.—In the autumn of 1938, international medical postgraduate courses are prospected.

For programs and further information apply to the Geschäftsstelle der Berliner Akademie für ärztliche Fortbildung, Berlin NW 7, Robert Koch-Platz 7 (Kaiserin Friedrich-Haus).

Foreign doctors and German doctors resident abroad are granted a reduction of fare of 60 per cent on the German Railways Company's lines; a foreign doctor can reduce the cost of his stay considerably by utilizing what are called "registered marks"; it is advisable to arrange matters with the local bank before starting.

Five High Awards Won by University of California at Big Medical Meeting.—Five of the twenty-four special awards for exhibits at the annual convention of the American Medical Association, held recently in San Francisco, went to the University of California Medical Center. This is considered particularly significant in view of the fact that many exhibitors were entered from all parts of the country. The value of the exhibits, biological, pathological and mechanical, was in excess of $1,000,000.

One of the most outstanding awards, the silver medal for exhibits showing the result of individual investigations, went to Hermann Sommer of the Hooper Foundation for Medical Research, a part of the University's medical center. Sommer had a particularly fine exhibit illustrating plankton and paralytic shellfish poisoning.

In the same category, Dr. John A. Marshall of the College of Dentistry received an honorable mention for an exhibit on clinical dental pathology.

The bronze medal for exhibits judged on the basis of excellence of presentation went to Dr. R. J. Reitzel and Dr. S. P. Lucia of the Division of Medicine, and Dr. Karl F. Meyer, director of the Hooper Foundation, for an exhibit illustrating clinical and epidemiologic demonstration of various infectious diseases.

Rudolph Skarda, research assistant in the Division of Anatomy, was given a certificate of merit for an exhibit illustrating anatomicrosurgical preparations.

Honorable mention was given Dr. LeRoy C. Abbott, Dr. F. C. Bost and Dr. John B. Saunders for their exhibit showing development of a technique for leg lengthening and reducing and otherwise treating fractures of the hip.

New Values Found for Health Factor in Oranges, Etc.—A significant new meaning has been given to the output of the orange grove, the truck garden and every other source of the potent vitamin C, through investigations into rheumatic fever made by the division of pathology of the University of California Medical School. These experiments have gone far to determine that vitamin C deficiency may be a contributory factor in the causation of rheumatic fever. At least two ounces of orange juice a day for both adults and children, or an adequate consumption of cabbages, tomatoes and other truck garden products rich in this vitamin, are suggested as a direct aid to the prevention of this disease, now considered a public health problem of major importance.

The studies of the division were made particularly with children and added new strength to the theory that the disease finds lodgment in the systems of undernourished children particularly. Many studies reveal the dominant occurrence of rheumatic fever among the poor. It is in the main a disease of childhood, the maximum incidence occurring between the ages of 5 and 12 years. It appears to be particularly prevalent in temperate countries and in the United States. The highest incidence of the disease is in the late winter and spring.

The comparative rarity of rheumatic fever and rheumatoid arthritis in Holland has been indicated by at least one outstanding authority and the importance of truck gardening and dairying in that country suggests that the local dietary might be more than adequate in vitamin C containing foods.

Studies made of the blood of children with rheumatic fever seems consistent with the idea of an absence of adequate amounts of vitamin C, according to Dr. James F. Rinehart, associate professor of pathology, who conducted the study for the Medical School.

New York Polyclinic Medical School and Hospital.—A special department of Facial Palsy has been established at the New York Polyclinic Medical School and Hospital for teaching purposes, with clinics every Thursday at 2 o'clock. This department is in charge of Dr. Thomas G. Tickle and his staff.

Hospital Gives Flowers Along with Medicine.—The University of California Medical Center has just prescribed a bouquet of flowers once a week to every patient in both hospital and public clinics.

Impressed by the peace of mind, the atmosphere of beauty and the general comfort that flowers bring to the sick, the staff of the Center has entered heartily into the activity of its volunteer unit in supplying fresh seasonal blooms for every tray. So far as is known, this is the only hospital in the country that has made the regular distribution of flowers a part of its routine.

So quickly has the idea "caught on" and so much benefit has resulted thus far, that the unit is now planning a "wild flower day," on which every patient will be given a bouquet or a spray fresh from California's verdant hillsides. It is hoped to hold this day in the early spring.

The flowers are now being obtained from the homes of many of the doctors, who bring the blossoms to the hospitals along with their instrument cases, from the gardens of many friends of the Center and from the grounds of the Center itself, portions of which are beautifully landscaped. The activity is under the direction of Mrs. Philip Caxon, head of the volunteer unit.

The unit is composed of volunteer women workers who devote their spare time to aiding the sick and distressed. Thus far it has been enabled to obtain enough flowers once a week for every patient. Most of the patients take every precaution to keep each bouquet as fresh as possible until the next bouquet arrives, so that they will have flowers at their bedside at all times. Even the most "desperate" cases seem able to obtain rest and comfort from the flowers, Mrs. Caxon reports.

The regular arrival of the bouquets is proving a boon particularly to the clinic patients, many of whom are unable to raise gardens or have any flowers of their own.

Sale of Certain Rodents Restricted in California.—Because chipmunks, golden mantled squirrels, and other rodents have been found to suffer from plague, the California State Board of Public Health has imposed restrictions upon the sale of such rodents as indicated in the following resolution of the board, issued August 17, 1937. The general public is advised not to handle such rodents, and dealers are warned that the requirements of this order must be observed:

"WHEREAS, It has been determined that plague infection has been found to exist in chipmunks in certain areas in California and other western states, and furthermore, it has been determined that this infection may be transmitted to man; and

"WHEREAS, It has become urgent to take all necessary precautions to prevent the transmission of plague infection to human beings as well as to protect this state in its sanitary relation with other states and countries; therefore,

"Be it ordered, under the authority vested in the Director of Public Health by Sections 2979 and 2979a of the Political Code of California, and the Public Health Act of this state, as amended, that the shipment or sale of chipmunks and/or golden mantled squirrels or other wild rodents be prohibited unless said chipmunks or golden mantled squirrels or other wild rodents are held in quarantine for a period of two weeks prior to date of shipment or sale, in either domestic or foreign trade. During this period of quarantine said animals are to be maintained in individual cages and any animal dying during the period of observation shall not be destroyed but shall be reported at once to the local health officer. The health officer shall thereupon communicate with the State Department of Public Health for instructions regarding the shipment of the animal to the state laboratory for examination. If any chipmunks and/or golden mantled squirrels or other wild rodents have been trapped in the same general area in which an animal has been found to be plague-infected, the entire consignment shall be destroyed."

Press Clippings.—Some news items from the lay press, on matters related to medical practice, follow:

Dr. Frank F. Barham Heads University of Southern California Alumni

Dr. Frank F. Barham, publisher of *The Evening Herald and Express*, today had been chosen president of University of Southern California's mighty Alumni Association.

Doctor Barham was declared elected and was installed at the annual meeting of the board of directors last night. He will serve during the academic year of 1938-39, succeeding Dr. Carl Howson, who was president during the past year.

Doctor Barham, long active in affairs of the General Alumni Association at University of Southern California, won distinction in 1936 when he served as chairman of the committee conducting Homecoming Week. Last year Doctor Barham held the office of president-elect.

The new alumni president is a graduate of University of Southern California School of Medicine and was a member of the class of 1906.

In his new position Doctor Barham will lead the activities of fifty thousand University of Southern California alumni members scattered throughout the world. There are Trojan alumni clubs in Paris, Hawaii, New York, Manila and the Orient, and in almost every city of any size in the United States.—Los Angeles *Evening Herald*, June 30.

* * *

Tuberculosis Doctors Elect

Livermore Physician President

Los Angeles, June 22.—(AP)—Dr. Chesley Bush of Livermore today was elected president of the National Tuberculosis Association, succeeding Dr. J. Arthur Myers of Minneapolis.

Dr. Frederick T. Lord of Boston and Dr. Paul P. McCain of Sanatorium, North Carolina, were named vice-presidents. Honorary vice-presidencies went to President Roosevelt and Dr. Henry D. Chadwick of Boston. . . .

The convention heard Dr. W. P. Shepard, of the Metropolitan Life Insurance Company, San Francisco, urge tuberculosis examination as a part of every school program.

"No proper school health or public health program can afford to overlook tuberculosis," Doctor Shepard said. He placed the average cost of a general health program at $1.70 per pupil per year, and said tuberculin testing, x-ray, and follow-up of positive reactors would increase that figure to about $2.30.—San Francisco *Examiner*, June 23.

* * *

Chief Surgeon Walter B. Coffey Retires; Is Succeeded by Dr. Calvin A. Walker as Hospital Department Head

More than forty-two years' association with Southern Pacific's Hospital Department, the last twelve years as chief surgeon and manager, came to a close for Dr. W. B. Coffey on July 1 when he retired under the company's pension system to be succeeded by Dr. Calvin A. Walker.

Holding high rank in Pacific Coast medical circles and internationally known for contributions he has made to the advancement of his profession, Doctor Coffey was honored with a banquet at the Fairmont Hotel in San Francisco on June 27 attended by 180 medical associates and railroad officers, when the retiring chief lauded the fine support received for so many years from members of his staff.

Southern Pacific was the nation's first railroad to establish, in 1867, a hospital department for the exclusive use of its employees. Down through the years the services of the department and excellency of its facilities have been expanded and improved under the direction of a succession of distinguished chief surgeons that included Drs. A. B. Nixon, T. W. Huntington, Mathew Gardner, F. K. Ainsworth, and the now retiring W. B. Coffey.

In recent years the Hospital Department has been favored with very generous financial gifts from Edward S. Harkness, one of Southern Pacific's directors, which funds Chief Surgeon Coffey has used in equipping the General Hospital at San Francisco and the Tuberculosis Sanatorium at Tucson with facilties for research, treatment, and surgery that establish those institutions as the finest maintained for employees by any industrial organization in the country, perhaps in the world.

Doctor Coffey has been a staunch advocate of the periodic "check up" for officers and employees so that ailments may be detected and treated before they cause serious damage to health.

The retiring chief surgeon graduated from Cooper Medical College, now Stanford University Medical School, in 1889, since which time he has practiced continuously in San Francisco. He became district surgeon for Southern Pacific in January, 1896; was appointed division surgeon in October, 1905, and assistant chief surgeon in August, 1923, succeeding Chief Surgeon Ainsworth on his retirement in August, 1926. He was a founder of the St. Francis Hospital in San Francisco in 1905, and is now president of that organization. Prior to taking over the duties of chief surgeon for Southern

Pacific, Doctor Coffey held the same position with the Market Street Railway. He was one of the organizers and was first president of the Pacific Association of Railway Surgeons.

Doctor Coffey will continue his active practice and research work in San Francisco.

Doctor Walker has been actively connected with the General Hospital in San Francisco almost continuously since graduating from Cooper Medical College in 1905. He was in Europe for several months during that year taking postgraduate work in various cities, and returned in July to become an intern in the railroad's general hospital. Following the earthquake and fire of 1906 he was transferred with patients to Sacramento where he became assistant surgeon in July, 1906. In November that year he returned to San Francisco as emergency surgeon for the district south of Market Street, and in January, 1910, was appointed district surgeon in that city. For four years prior to joining the United States Army Medical Corps in April, 1918, he had been a visiting surgeon for the company in San Francisco. At the time the armistice was signed he was ready to sail for France as commander of Field Hospital No. 234. Returning to Southern Pacific in May, 1919, he resumed the duties of visiting surgeon; was appointed Coast Division surgeon in February, 1927, and has been supervisor of surgical services at the General Hospital since May, 1936.

For several years Doctor Walker has been a member of the medical staff of the Market Street Railway, also handling the industrial surgical work of the California Street Cable Railway, and is a director of the St. Francis Hospital. —Southern Pacific *Bulletin*, July, 1938.

* * *

FERA, New Deal Agency, Dead*

Congressional Lease of Life Ends for Once Big Spender

Washington, June 30. — (AP) — A bookkeeper drew a double red line in a ledger in the WPA office here today, and the Federal Emergency Relief Administration, one of the oldest and richest agencies of the New Deal, gave up the ghost.

Its cash register once sang to the tune of $1,000,000,000 per annum. But when its Congressional lease on life ran out at the end of the fiscal year today its assets amounted to only $250,000. This automatically goes to the Treasury to pay any claims on the FERA estate.

FERA was born on May 22, 1933, when a young social worker from New York, Harry Hopkins, came to Washington and was made administrator of the new agency, which was to distribute Federal funds to the states, chiefly for direct relief.

Young Hopkins took over an office in the crowded RFC Building, sat down and started the career of FERA.—San Francisco *Examiner*, June 31.

* * *

July 4 Death Toll Reaches 476 in Nation

Twenty-two Fatalities in California

America's three-day Independence celebration by last night had taken a toll of 476 lives—eight of them in northern California—with scores of others so critically injured that a final count this morning may bring the total close to last year's record of 563 deaths.

There were twenty-two deaths throughout California.

A national survey of the casualties by the Associated Press chalked up 245 auto traffic deaths, 126 more in drownings, twelve killed by trains, twenty-three dead in shootings, nineteen suicides, only three from fireworks, and forty-seven from various other causes.—San Francisco *Examiner*, July 5, 1938.

* * *

Doctors Study Venereal Diseases

State to Pay Students During Course

Twelve young physicians today started the first postgraduate training course in venereal disease control at the University of California, Dr. Malcolm H. Merrill, chief of the state's Bureau of Venereal Diseases, said.

Under a $12,000 grant from the State Department of Health, they will be paid during the three months they attend classes and during the next nine months of field clinics.

They will then be employed by the Bureau of Venereal Diseases in clinics throughout the state.

Those taking the course include:

Drs. Katherine H. MacEachern, E. Glenn Wood, and William F. Conrad, Los Angeles; Edward Hirschberg and Carl P. Jensen, Fresno; James W. Moreland, San Bernardino; H. C. Pulley and Helen Mackler, San Francisco; W. L. Turner and Russell Frantz, Santa Barbara; Philip K. Condit, Oakland; and Chester M. Weseman, Sacramento.—San Francisco *News*, July 5, 1938.

* FERA was the agency that allocated Federal funds for the "California Medical Economic Survey."

Old Age Pensioners in California

Sacramento, July 5.—(AP)—Cost of old age assistance continues to mount, statistics of the State Department of Social Welfare indicate.

The total for May of this year was $3,748,021, compared with $3,606,284 for April. A year ago the May total was only $2,379,678.

There are 116,040 individuals receiving old age assistance. The average payment per person is $32.53.

Just before the old age law was liberalized, it was tentatively estimated that the normal increase which could be expected due to greater numbers of persons attaining the requisite age would be 20 per cent a year.

Lowering of the age limits and the years of residence have accounted for the greater part of the big increase in the total number receiving financial assistance since the pension was established.

47,092 on Roll at Los Angeles

As recently as June, 1935, there were only 21,310 persons in the entire state drawing old age pensions. Los Angeles County alone now has 47,092 on its rolls.

The ten counties with the next largest number receiving old age aid are:

San Francisco, 8,285; Alameda, 6,981; San Diego, 5,709; San Bernardino, 3,973; Santa Clara, 3,094; Fresno, 2,760; Sacramento, 2,917; Riverside, 2,695; Orange, 2,483; and San Joaquin, 2,161.

All of the other counties have fewer than two thousand on their lists.

Sparsely settled Alpine County has only eleven old age pensioners; Mono has only sixty-two. The latter's average payment at $35 a person, is the highest for the state.

Those having between 1,000 and 2,000 are: Humboldt, 1,218; Butte, 1,434; Kern, 1,400; Santa Barbara, 1,058; Santa Cruz, 1,175; Sonoma, 1,812; Stanislaus, 1,233, and Tulare, 1,689.

Alameda's cash disbursements average is the lowest for the state at $30.72.

Each successive California Legislature has increased the benefits payable to the aged.

The state's Old Age Security Act of 1929 provided a minimum age of seventy at which the elderly could draw pensions. This was cut to sixty-five years in 1935. Pensions then were $20 to $35 monthly. The 1937 Legislature left the age limit at sixty-five, but reduced the required residence from fifteen to five years, adding in excess of fifty thousand to the eligible list.—San Francisco *Call-Bulletin*, July 5, 1938.

* * *

Free Syphilis Tests

All City Emergency Hospitals Again Open to Public

The regular Wednesday Wassermann tests for syphilis at all San Francisco's emergency hospitals will be given again tomorrow from 10 a. m. to 10 p. m., Dr. J. C. Geiger, city health officer, announced today.

Doctor Geiger reminded San Franciscans that these tests are free and confidential and are offered the public weekly, both for the benefit of individuals and also to determine the prevalence of syphilis in San Francisco.—San Francisco *News*, July 5, 1938.

* * *

Supervisors Told How to Save Million Dollars

Counsel Rules Persons on Relief Can Be Sent to Other States If Kin Can Support Them

Estimated to give an annual saving within the county of about a million dollars if it can be made effective, legal opinion yesterday was given the Board of Supervisors that approximately sixteen hundred persons on relief rolls here can be sent back to other states if relatives there can support them.

Deputy County Counsel Claude McFadden, who submitted the ruling, ruled on the case of a woman who refused to return to the Oregon home of a brother, who was willing to support her. She is on relief here.

The ruling affects so-called technical nonresidents of the state under the state law which requires that persons coming here from other areas must be self-maintaining for at least three full years before applying for relief, if they are to perfect their California legal residence.

Executives of the county's department of charities have denied aid to many of these persons, forcing them on the rolls of private relief agencies, but no direct ruling was made until yesterday that county funds cannot be legally used in aiding these indigents, even if they have lived here for many years but have not been self-supporting for any three years of a period.—Los Angeles *Examiner*, July 6, 1938.

* * *

Population in 1988 Mostly Middle-Aged

Washington, July 5.—(AP)—President Roosevelt made public tonight a report predicting that the American population, after attaining a peak of 158,000,000 by 1988, would

dwindle thereafter and would consist largely of old, or middle-aged people.

The prediction was made by the committee on population problems and was transmitted to the White House by the President's national resources committee.

The experts estimated that between 1935 and 1975, the number of persons twenty to forty-four years of age would increase only 6 per cent, whereas the number forty-five to sixty-four years old would increase 69 per cent.

Peak May Be 138,000,000

Persons over sixty-five, now comprising about 6 per cent of the population, will constitute 15 per cent of it in 1980. People under twenty, now about 37 per cent of the population, will be only about 25 per cent in 1980.

All this, the committee suggested, might be circumvented by relaxation of present bars to immigration and by a reversal of the diminishing birth rate, but in the long run a halt in the population increase might not be such a bad thing after all.

While the committee leaned toward a population estimate of 158,000,000 by 1988 it said there was a possibility that the peak might actually be 138,000,000 and that it might be reached as early as 1955.

Indians Increasing

Discussing births, the survey said white and Negro groups now are reproducing at about the same rates, while the American Indians are the most rapidly increasing racial stock in the country.

The report declared that the members of the committee, which included prominent students of population, eugenics, genetics, and sociology, were not advocating a general reduction in the size of families.

Instead, they favored lifting the burden of carrying individuals and families unable to support themselves off the back of individuals and families now paying the bills.

Then, the report added, the latter families would be able to raise more children, thus changing the present situation in which families on relief average many more children than the nonrelief groups.—Los Angeles *Examiner*, July 6, 1938.

* * *

British Doctor Freed by Jury

London, July 19.—(INS)—Eminent doctors today applauded a jury's verdict freeing Dr. Aleck William Bourne, one of England's most noted gynecologists, of criminal charges because he spared a fifteen-year-old assault victim motherhood.

Doctor Bourne admitted performing an illegal operation upon the girl, victim of assault by a group of soldiers, and invited prosecution on behalf of the gynecologists of the nation.—San Francisco *Examiner*, July 20.

* * *

Social Disease Work Outlined

Part of Federal Fund To Be Used to Help Those Unable to Pay

Washington, July 14. — (AP) — Government physicians today said that the major part of a new $3,000,000 fund for control of venereal diseases will be devoted to treatment of persons who cannot pay for private care.

Members of the public health service's venereal diseases division said funds will be distributed to every state for use in buying medicines, establishing or aiding clinics, financing educational work or paying salaries of persons engaged in control activities.

For these purposes, $2,400,000 will be divided among the states, in the present fiscal year, on a basis of population, financial needs and the extent of venereal disease.

The federal service is retaining $600,000 for the development of prevention, treatment and control methods.—Los Angeles *Times*, July 18.

* * *

British Doctors Threaten Strike

London, July 7.—(AP)—British doctors threatened a possible "stay-in strike" today to prevent admission of additional Austrian physicians to practice in this country.

Dr. A. Welply, general secretary of the Medical Practitioners Union, said if representations to members of the House of Commons failed "much more drastic action will be taken—something will be done to arouse the whole country; it may possibly develop into what is known as a stay-in strike."

Welply asserted foreign doctors were not required to study as long as qualified British physicians.—San Francisco *Chronicle*, July 8, 1938.

* * *

U. S. to Survey California Welfare Outgo

A study by Washington authorities of how California is spending $24,000,000 a year in federal funds on social welfare will begin shortly, it was disclosed here yesterday.

Miss Jane Hoey, director of the Social Security Board's bureau of public administration, is already in the state making final arrangements for the study. Eight experts will arrive from the East later this month to begin operations.

The woman director said the study had been requested by the State Social Welfare Board with the assent of Director Mrs. Florence Turner and Governor Merriam.

The study will concentrate in the metropolitan areas of San Francisco, Los Angeles and Alameda counties. A typical San Joaquin Valley county, however, also will be studied.

Relief workers in San Francisco will be checked to determine if they are functioning properly under the laws by which the Federal Government matches state funds.—San Francisco *Chronicle*, July 8, 1938.

* * *

Letterman Hospital Addition Assured

Unofficial but authoritative advices that PWA construction of three new wings for Letterman General Hospital has been approved were received here yesterday by Representative Franck Havenner.

The additions, Havenner said, will replace the old wooden wards which line the front of the hospital and have been branded as fire menaces.

One new ward, Havenner said, will be for officers, one for women, and the third for enlisted men.—San Francisco *Chronicle*, July 8, 1938.

* * *

Migrant Vote May Decide State Election

Majority of 221,000 Workers Eligible to Ballot†*

California's elections may be decided by the votes of migrant farm workers from the Midwest drought area and other states where agriculture and employment have been adversely affected by the Roosevelt recession.

With a large field of candidates for governor, lieutenant-governor and other state offices, as well as for the Legislature, minority nominees at the August primary election may land on top of the heap at the November general election by the votes of the newcomers, many of whom are recipients of government relief.

221,000 in State

According to the U. S. Farm Placement Bureau, more than 221,000 of these farm workers have entered California in the past thirty months. A large proportion of them have been here long enough to establish a voting residence. . . .

Balance of Power

"The drive," states Archie Closson, a Lodi farmer and a former American Legion commander, who is campaigning in the valleys for the Merriam forces, "has as its objective to bring about the defeat of the governor in the belief that the refugees, if they vote as a block, hold the balance of power in the coming elections.

"When we consider that state registrations this year are estimated at more than 3,200,000, it readily will be seen that such calculation is within the realm of possibility. The propaganda, of course, follows the familiar Communist formula of playing on the psychology of distressed and disheartened people."

"The situation," Closson declared, "would be more disturbing were it not for the character of the refugees themselves. Reports from the interior indicate that a large proportion, if not a majority, are earnest, industrious workers, anxious and willing to work. It is their misfortune and California's problem that they were led to come here, seeking work, at a time when there is not enough work to go around."—San Francisco *Chronicle*, July 26.

LETTERS

Concerning an American Museum of Health, Incorporated.

New York, June 11, 1938.

To the Editor:—One of the outstanding exhibits at the New York World's Fair, 1939, Incorporated, will be that of the $400,000 Medical and Public Health Building, already erected on the Main Esplanade and adjacent to the Trylon and Perisphere—the Fair's Theme Center. Here will be displayed in one coördinated, carefully planned set of units numerous exhibits of unparalleled importance to the welfare of mankind.

At the conclusion of the Fair, it is expected that many of the exhibits displayed in the Medical and Public Health

* By Earl C. Behrens.

† For other comment, see page 155.

Building will be removed to a permanent Museum of Health to constitute the nucleus of an influential institution for health education in New York City.

Yours very truly,

EDMUND LEAMY,
Assistant to Secretary.

30 Rockefeller Plaza.

Concerning use of paper milk containers in dairy plants.

(COPY)

June 27, 1938.

Dr. C. U. Duckworth, Assistant Director,
State Department of Agriculture,
Sacramento, California.

Dear Doctor:

I am in receipt of a communication from Mr. O. A. Ghiggoile, Supervisor of Dairy Service, Division of Animal Industry, in which he advises me that the use of paper milk containers in dairy plants distributing milk and cream to the retail trade is contrary to the provisions of Section 479, Paragraph B, of the State Agricultural Code, which section and paragraph require that bottles used in the distribution of milk and cream to the retail trade be washed and sterilized before re-use.

I have carefully reviewed the terms of this section and paragraph and find the context obviously refers to the cleansing and sterilizing of glass containers. Glass containers being frequently refilled must be thoroughly cleansed and sterilized before re-use. This procedure is unnecessary in the case of paper milk containers, which are designed primarily for single use and are delivered at the dairy plant in practically sterile condition. Apparently when this section of the Agricultural Code was drafted no thought was given to the possibility of paper milk containers being used for the retail distribution of milk and cream. Nowhere in the Agricultural Code is any specific mention made of paper milk containers. I am of the opinion that the development of the paper milk containers has reached the stage where health authorities can raise no valid objection to its use in the distribution of milk, cream and milk food products to the retail trade. This statement is based on the fact that many investigators throughout the nation have conducted studies on this subject and have reached the conclusion that in its final form the paper milk container is practically sterile and therefore a suitable medium for the delivery of milk and cream to the retail trade.

Probably the most comprehensive investigation initiated for the purpose of ascertaining the sterility of the paper milk container was that sponsored by the University of Illinois. The findings submitted as a result of this investigation demonstrated the practical sterility of the paper milk containers. This department has had occasion to examine bacteriologically two types of paper milk containers, namely, the finished container delivered at the dairy plant and the finished container which is formed, paraffined, filled and sealed within an automatic machine. I am enclosing for your information reports of the laboratory upon these examinations. These tests have confirmed the belief that to all intents and purposes the paper milk container is sterile. I believe that under the State Agricultural Code the Director of Agriculture has the power to approve the use of paper milk containers provided that after proper investigation and study he is convinced that the use of such container would not be prejudicial to public health nor affect in any way the quality and wholesomeness of the milk.

Up to the present moment the milk distributors of San Francisco have manifested no desire to replace the present glass containers with paper receptacles. One milk distributing concern, however, made inquiry as to the attitude of the department on the use of paper milk containers and as a result of the inquiry submitted to the laboratory for bacteriological examination specimens of the particular type of container he was interested in. This container is formed, paraffined and filled within the machine. Apparently the negotiations have fallen flat, as I have received no further information on the matter.

The order issued by Mr. Ghiggoile prohibiting the use of paper milk containers cannot apply to the milk plant operators in this city due to the fact that paper milk containers are not now in use. In conclusion, I would recommend that further study and investigation be given to this subject before enforcing the terms of the order.

A copy of this letter is being sent to the American Can Company, as we have discussed the question of the use of paper milk containers with them.

Sincerely,

J. C. GEIGER, M.D.,
Director of Public Health.

MEDICAL JURISPRUDENCE †

By HARTLEY F. PEART, ESQ.
San Francisco

Release of One Joint Tort-Feasor as Release of All: Effect of Dismissal by Plaintiff as to One of Several Defendants in a Malpractice Action

An action against a physician and surgeon for alleged "malpractice" is under legal terminology termed a "tort" action. The defendant is called a "tort-feasor." Actions at law based upon the alleged breach of a promise, whether oral or witten, express or implied from conduct, are called "contract" actions. Actions at law based upon an alleged negligent or willful act causing injury to person or property are all classified as "tort" cases and "malpractice" suits fall within this classification.

Now, let us assume that an action alleging malpractice is commenced against Doctor A, a surgeon, against Doctor B, a general practitioner who treated the plaintiff prior to the performance of a surgical operation by Doctor A, against C, a hospital, and against D, a nurse who attended during the operation on the plaintiff. Then let us suppose that plaintiff a few days before the trial accepts an offer of settlement from the C hospital and thereupon dismisses the action as to the hospital. Can the plaintiff then proceed and secure a judgment against the two physicians and the nurse? It is a rule of the common law (which has been adopted in this state in the Civil Code) that the release of one of two or more joint obligations under a *contract* does not release the others, but that a release of one of two or more joint *tort-feasors* acts as a release of all. One reason for this rule is that by accepting a settlement from one of two or more joint tort-feasors an injured person thereby announces that he has received satisfaction for the injury complained of. Another reason is that it would be unjust that the injured party be allowed double payment for the single injury. A third reason often advanced is that the injuries sustained as the result of joint acts by several persons are inseparable and give but a single cause of action, the satisfaction of which by any one of the joint tort-feasors extinguishes the single cause of action as to all of them. There have been several California cases which illustrate the foregoing rule. In

Manson vs. *Casey*
19 Cal. App. 400

the facts were as follows: Plaintiff tripped on a defective sidewalk and was injured. She commenced an action for damages against members of the San Francisco Board of Public Works and eventually accepted the sum of $250 in settlement of her claim against *one* of the members of the board. The settlement document released the member paying the $250 and stated that it was not the intention of the plaintiff that it should operate as a release of the liability of the other defendants. The court held that a plaintiff could not settle with one of several joint tort-feasors without automatically releasing all of the others. The court further stated that it was impossible for a plaintiff to preserve a right of action against those defendants with whom a settlement was not reached.

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

In the case of

Lewis vs. *Johnson*
93 Cal. App. Dec. 638

the facts were as follows: Plaintiff commenced an action against two physicians, a hospital and a nurse for damages for alleged malpractice. During the trial the plaintiff settled with the hospital and the nurse and then attempted to proceed as against the two physicians. The court held, however, that the plaintiff had by releasing the hospital and the nurse thereby automatically released all of the defendants. Accordingly, judgment in favor of the defendant physicians was ordered. In this case, as in the *Manson* case, the plaintiff, after releasing one defendant, had endeavored to reserve a cause of action against the remaining defendants. But the Court held with respect to this attempted reservation as follows:

> The attempted reservation of a cause of action against the remaining defendants was ineffectual and void. It is settled that a retraxit as to one joint tort-feasor releases all of the joint tort-feasors, irrespective of an attempted reservation of the cause of action against some of the tort-feasors and regardless of the intentions of the parties.

Hence, it should be borne in mind that in every action for malpractice against two or more defendants based upon one alleged injurious act or omission in which all of the defendants assertedly participated, a release by the plaintiff as to one of the defendants acts as a release with respect to all.

SPECIAL ARTICLES

CALIFORNIA SOCIETY FOR THE PROMOTION OF MEDICAL RESEARCH*

Action taken at the recent convention of the American Medical Association and meetings of various allied medical organizations in San Francisco and Del Monte brought to seventy-nine the formal endorsements of the campaign to defeat California's proposed "State Humane Pound Act," which is to appear on the ballot at the general election in November.

This is the announcement of the California Society for the Promotion of Medical Research (369 Pine Street, San Francisco), conducting a program of education against the measure, which it brands as mistitled antivivisection legislation. The society, headed by President Ray Lyman Wilbur of Stanford University, has on its committee every university president in the state, besides eminent churchmen, physicians, dentists, scientists and lay men and women to the number of more than a thousand.

"It is not medical societies alone which have gone on record in opposition to this proposed measure, though they, of course, know best the dangers that would result from enactment of such a law," says a statement issued by James Leo Halley, chairman of Public Education Week in San Francisco. "Organizations of many kinds have united in calling attention to the grave injury to public health work which such a law would entail."

Opposition to the initiative has been officially recorded by such groups as the San Francisco Chamber of Commerce, the San Joaquin Kennel Club, the National Board of Trustees of the Shriners Hospitals for Crippled Children, as well as the American, Western, California and Catholic hospital associations; Canners League of California, California State Dental Association, and the American Association for the Advancement of Science, the latter with 250,000 affiliated members.

* * *

List of organizations endorsing campaign against the proposed "State Humane Pound Act" in California:

Academy of Science of St. Louis
American Academy of Orthopedic Surgeons
American Academy of Pediatrics
American Association for the Advancement of Science (membership, 18,000; affiliated membership, 250,000)
American Association of Anatomists
American Association of Dental Schools
American Association of Medical Milk Commissions
American Board of Otolaryngology
American Board of Radiology
American Board of Urology
American Clinical and Climatological Association
American College of Chest Physicians
American College of Physicians
American College of Surgeons
American Dermatological Association
American Drug Manufacturers' Association
American Foundation for Tropical Medicine
American Hospital Association
American Medical Association
American Medical Women's Association
American Neurological Association
American Ophthalmological Society
American Pediatric Society
American Physiological Society
American Radium Society
American Rheumatism Association
American Society of Biological Chemists
American Society of Clinical Pathologists
American Society of Ichthyologists and Herpetologists
American Society of Zoölogists
American Student Health Association
Association of American Medical Colleges
Association of California Hospitals
Association for Research in Ophthalmology
Association for the study of Internal Secretions
Association of Western Hospitals
California Academy of Medicine
California Academy of Sciences
California Association of Clinical Laboratories
California Heart Association
California Medical Association
California Pharmaceutical Association
California State Association of Chiropodists
California State Dental Association
California State Organization for Public Health Nursing
Canners League of California
Catholic Hospital Association of United States and Canada
Central Society for Clinical Research
Congress of American Physicians and Surgeons
Ecological Society of America
Federation of American Societies for Experimental Biology
Genetics Society of America
Hewlett Club, San Francisco
International Association for Dental Research
Kentucky Academy of Science
National Board of Medical Examiners
Northern California Retail Druggists' Association
Ohio Academy of Science
Pacific Coast Surgical Association
Pacific Roentgen Club
Pasteur Society of Central California
Pennsylvania Society for the Protection of Scientific Research
Public Health League of California
San Francisco Center of the California League of Women Voters
San Francisco Chamber of Commerce
San Francisco County Medical Society, Women's Auxiliary
San Francisco Pathological Society
Shriners Hospital for Crippled Children, National Board of Trustees
San Joaquin Kennel Club
Society of American Bacteriologists
Society for Experimental Biology and Medicine
Southern California Public Health Association
Southern California State Dental Association
Virginia Academy of Science
Western Society of Naturalists
Whittier District Medical Society

* For other comment, see page 109.

NEW FEDERAL FOOD, DRUG AND COSMETIC ACT

The new Federal Food, Drug and Cosmetic Act became law in June, 1938, when it was signed by President Roosevelt. Its general provisions will become effective one year from June. Certain provisions become effective immediately.

The new law, in its principal differences from the Federal Food and Drugs Act of June 30, 1906:

1. Brings all cosmetics except toilet soaps under control; outlaws cosmetics which may be injurious to health, except poisonous coal tar hair dyes which bear warning labels; prohibits false or misleading labeling.

2. Prohibits traffic in food which is injurious to health. (The old law prohibits injurious food only when the poisonous substance is added.)

3. Prohibits the addition of poison to food except where such addition is necessary or cannot be avoided in production; where added poisons are necessary or cannot be avoided, tolerances are authorized limiting the amount to a point of safety.

4. Authorizes emergency permit control of food that may be injurious because of contamination with microorganisms, if public health cannot otherwise be protected.

5. Forbids traffic in confectionery containing metallic trinkets and other inedible substances.

6. Specifically requires label declaration of artificial coloring, artificial flavoring and chemical preservatives in food, but exempts butter, cheese and ice cream from this requirement in so far as artificial coloring is concerned.

7. Requires labeling of special dietary food to inform purchasers fully of its vitamin, mineral and other dietary properties.

8. Provides for the promulgation of a definition and standard of identity and a reasonable standard of quality and fill of container for each food, but exempts from this provision fresh and dried fruits and vegetables except avocados, cantaloupes, citrus fruits and melons. Butter is also exempt from this provision, but the Act preserves the statutory definition and standard of identity for butter which became law in 1923. (The old law contains no authority for the establishment of definitions and standards of identity, and the authority to establish standards of quality and fill of container is limited to canned foods.)

9. Requires the labeling of food for which no definition and standard of identity has been fixed to disclose the ingredients by name, except colorings and flavorings, which may be declared simply as coloring and flavoring. Authorizes regulations prescribing exemptions from this requirement where compliance is impracticable or results in deception or unfair competition.

10. Does not contain the "distinctive name" joker of the old law under which any food not injurious to health can escape control.

11. Brings under control drugs used in the diagnosis of disease and drugs intended to affect the structure or any function of the body.

12. Brings therapeutic devices under control, and subjects them to the same general requirements as are set up for drugs.

13. Prohibits traffic in drugs and devices which are dangerous to health under the conditions of use prescribed in the labeling.

14. Prohibits traffic in new drugs unless such drugs have been adequately tested to show that they are safe for use under the conditions of use prescribed in their labeling; authorizes exemption from this requirement of drugs intended solely for investigational use by qualified scientific experts.

15. Makes the Homeopathic Pharmacopeia of the United States the legal standard for homeopathic drugs.

16. Requires labels of official drugs—i. e., drugs recognized in the U. S. Pharmacopeia, National Formulary or Homeopathic Pharmacopeia of the United States—to reveal any differences of strength, quality or purity from the official standards. (The old law requires merely that the label bear a true statement of the strength, quality and purity of the drug, without showing the difference from the official standard.)

17. Requires drugs intended for use by man to bear labels warning against habit formation if they contain any of a list of narcotic or hypnotic habit-forming substances, or any derivative of any such substance which possesses the same properties.

18. Requires the labeling of drugs and devices to bear adequate directions for use, but authorizes regulations exempting drugs and devices from this requirement where it is not necessary for the protection of the public health.

19. Requires the labeling of drugs and devices to bear warnings against probable misuse which may be dangerous to health.

20. Requires special precautionary labeling for drugs that are liable to deterioration.

21. Does not contain the fraud joker in the old law under which the Government must prove that false claims of curative effect on the labels of patent medicines were made with willful intent to deceive.

22. Requires official drugs to be packaged and labeled as prescribed by the Pharmacopeias and Formulary.

23. Defines nonofficial drugs as illegal if the standard of strength differs from the standard claimed. (The old law prohibits only those which fall below the strength claimed.)

24. Requires that antiseptics possess germicidal power.

25. Requires the labels of nonofficial drugs to list the names of the active ingredients, and in addition to show the quantity or proportion of certain specified substances. Authorizes regulations prescribing exemptions from this requirement when compliance is impracticable.

26. Proscribes the use of containers for food, drugs and cosmetics which may render the contents injurious to health.

27. Prohibits traffic in food, drugs and cosmetics which have been prepared or handled under insanitary conditions that may contaminate them with filth or that may render them injurious to health.

28. Forbids the use of uncertified coal tar colors in food, drugs and cosmetics other than hair dyes.

29. Proscribes slack filling of containers for food, drugs and cosmetics, and outlaws the use of deceptive containers.

30. Authorizes factory inspection of establishments producing food, drugs, devices and cosmetics for interstate shipment.

31. Provides for the procurement of transportation records and other documents necessary to establish federal jurisdiction.

32. Requires that part of samples collected by the Government for analysis be given to the manufacturer on request, but provides exemption from this requirement to the extent necessary for proper administration of the Act.

33. Authorizes the Government to charge fees for the certification of coal tar colors in amounts necessary to defray the expenses of the service.

34. Specifically authorizes settlement of minor violations through written notice or warning from the enforcing agency when the public interest can thus be adequately served.

35. Provides increased criminal penalties for violations.

36. Authorizes the federal courts to restrain violations by injunction.

37. Limits seizure for misbranding to a single interstate shipment of the product unless the misbranding has been the subject of a prior court decision in favor of the Government, or unless the misbranded article is dangerous to health, or its labeling is fraudulent or would be in a material respect misleading to the injury or damage of the purchaser or consumer. Authorizes consolidation of multiple seizure cases (seizures of two or more interstate shipments of identical goods from the same shipper) for trial in a single jurisdiction. Also authorizes such consolidated cases, as well as cases involving seizure of a single interstate shipment for misbranding, to be removed for trial to any district agreed upon by stipulation between the Government and the shipper or owner of the seized goods. In case of failure to reach such an agreement, the shipper or owner of the goods may apply to the court in which the seizure was made, and the court is required, unless good cause to the contrary is shown, to specify a district of reasonable proximity to the applicant's principal place of business in which the case will be tried. (The old law places no limitation on the number of shipments of illegal goods which may be seized; contains no provision for change of venue for trial. Seizure cases are tried in the district in which seizure occurs, which ordinarily is the district to which the goods have been shipped for sale and consumption.)

38. Provides for a judicial review in the United States Circuit Court of Appeals to determine the validity of certain regulations. This form of review is an addition to and not in substitution for established forms of review through equity proceedings and proceedings under the Declaratory Judgment Act.

Immediately upon approval of the Act by the President the following provisions became effective:

The prohibition against drugs which are dangerous to health when used in the dosage, or with the frequency or duration prescribed, recommended or suggested in the labeling.

The prohibition against the introduction of new drugs before an application for such introduction becomes effective.

The prohibition against cosmetics which may be injurious to users under the conditions of use prescribed in the labeling or under such conditions as are customary or usual. However, poisonous coal tar hair dyes which would be exempted under the proviso of this requirement if they bore the warning label prescribed by the statute will not be subject to action by reason of their failure to hear the prescribed warning until ninety days after the date of approval.

SOCIALIZED MEDICINE: A RECENT POLL

On the basis of reply blanks received it would appear that approximately 66 per cent of the doctors of California are opposed to a reorganization of medical practice in the direction of socialized medicine, as revealed in the final results of a physician's referendum on socialized medicine conducted by *Modern Medicine*. A total of 16,711 ballots were cast by doctors throughout the nation, giving the greatest direct expression of medical opinion ever recorded on any topic whatsoever, and indicating that the trend of medical thought —except for New York City—is definitely away from socialized medicine, the editors announce.

On the question as to whether public funds should be used to pay the cost of medical care for the indigent and low income group, 54 per cent of California doctors replying voted in favor. However, 83 per cent of those who replied voted support of the present policies of the American Medical Association in studying all plans of making a high standard of medical care available to all people under the control of each community.

Of the specialists in California, 61 per cent of those who replied voted against reorganization, but of the general practitioners, about 68 per cent. Among replying doctors in metropolitan centers in California (cities over 50,000), 63 per cent voted against reorganization. Of the specialists, 58 per cent who answered the questionnaires favored the use of public funds to pay for medical care, while of the general practitioners, about 50 per cent.

The final results obtained in the publication's referendum on socialized medicine are at great variance with the recently published "Gallup poll," which, under the sponsorship of the American Institute of Public Opinion, reported that seven out of ten doctors favored the principle of health insurance. According to the *Modern Medicine* referendum, in which 16,711 doctors' votes gave a cross-section of medical opinion throughout the whole United States, active practicing doctors in the United States definitely oppose the reorganization of medical practice by a vote of two to one.

They reported that they knew of very few cases, not more than one in ten, where individuals or families, claiming inability to pay, were not getting whatever medical care a physician himself can provide. They showed a slight preference (55 per cent) for the use of public funds to pay for medical care for the indigent and low income groups. They strongly approved the present policy of the American Medical Association by a vote of 17 to 3.

This vote showed a definite trend of opinion among United States doctors away from socialized medicine. In 1935, in a similar survey conducted by *Modern Medicine*, 43 per cent of 6,044 doctors voted favoring a change in the administration of medical practice. In 1938, two out of three doctors among the 16,711 voting opposed reorganization.

Among doctors who replied yes to the question on the physicians' referendum which read: "Do you know of any case in your community where an individual or family, claiming inability to pay, has been refused whatever medical care a physician could provide?" many amplified their answers to the effect that the so-called "claim" of inability to pay was false and that care was sometimes refused to individuals who spent their money on luxuries, vacations, transportation, liquor and gambling while owing bills and telling the doctor they could not pay anything at all for his services.

The greatest opposition to reorganization of medical practice was found among country doctors and general practitioners who had been in practice for more than fifteen years. In this poll, reorganization of medical practice found most favor among general practitioners who were earning less than $3,000 a year, and who were practicing in large cities.—*Modern Medicine*, July, 1938.

POPULATIONS OF LARGER AMERICAN CITIES: STRIKING AGE CONTRASTS

A relative preponderance of elderly people is characteristic of most of the principal cities of the Pacific Coast states. In fact, according to the last census, there are more cities of elders in the Pacific Coast states than in any other main geographic division of the country. Of all our ninety-three large cities, that is, those which had more than 100,000 population in 1930, there are eighteen in which more than 6 per cent of the population in that year was in the age range 65 and over; and seven of these cities are in the three Pacific Coast states, four of them being in California.

Long Beach, Calif., with 9.2 per cent of its population over 65 years of age, is, in this sense, the oldest of America's large cities, although it is closely followed by San Diego, in the same state, with 9.1 per cent. These two cities, in fact, stand out from all the rest, as the third city in order is Spokane, Wash., with only 7 per cent of its population over 65 years. Tacoma, Wash., and Denver, Colo., are bracketed for fourth rank with 6.9 per cent. In New England there are three cities with a large contingent of old people, namely, Lowell, Lynn, and Somerville—all in Massachusetts. Cincinnati and Grand Rapids are the only representatives of the East North Central region; in the Middle Atlantic states there are four, namely, Albany, Reading, Rochester, and Utica; and in the West North Central group only one, namely, St. Paul.

The existing age distribution, as must be well known to our readers, is the result of a gradual drift towards older ages that has been taking place for many decades, due mainly to the declining birth rate, with consequent lessening in proportion of young people in the population. This is a general phenomenon observed in the population of this country at large, as well as abroad, and, with few exceptions, individual cities have shown a drift in the same direction. Which of the ninety-three large cities included in our table has registered the greatest increase in proportion of its older people, since the beginning of the present century, cannot be told, because ten of these cities were small places at the beginning of the century and we have no data regarding their age distribution at that time. However, of eighty-three cities for which it is possible to make comparison between 1900 and 1930, we find that Spokane leads in this respect, with an increase in the proportion of the population over age 65 from 1.9 per cent in 1900 to 7 per cent in 1930. In two other cities in the State of Washington—Tacoma and Seattle—the proportion of persons over 65 years of age practically tripled in thirty years, and the same is true of Duluth, Minn., which exhausts the list of cities showing a threefold or greater increase in the proportion of those 65 or more years old. Cities in which this proportion has doubled, or more than doubled, are Denver, Fall River, Kansas City (Kansas), Kansas City (Missouri), Minneapolis, Omaha, Portland (Oregon), and St. Paul.

There are only two large cities in the United States—Akron and Detroit—in which the proportion of persons 65 years and over has declined since 1900.

Gary, Indiana, is the country's youngest among all the cities of more than 100,000 population, with only 1.7 per cent of its inhabitants aged 65 years or over.

Special interest attaches to the five largest cities (those of more than 1,000,000 population). Detroit is by far the youngest, when measured by its proportion of old people—only 2.8 per cent. New York (3.8 per cent) is decidedly a young city, as is Chicago, with exactly 4 per cent. The Philadelphia population, with 5.1 per cent in the 65 and over group, is older, while Los Angeles, with 6.2 per cent, is the oldest among America's five largest cities.

Turning now from extremes to a consideration of what might be thought the most typical cities, namely, those at or around the middle of the list, in order of rank, we find five—Toledo, Salt Lake City, St. Louis, Paterson, and Kansas City (Kansas)—with the median of 5.2 per cent of persons 65 or more years old. It is interesting to observe that this comes very close to the general average for the United States population as a whole, that is, 5.4 per cent.

It will be noted that the cities with the highest contingents of old people are places distinguished by equable climate, and by the facilities for rest and recreation which these communities provide. Old people who have been able to retire and to live on private income, savings, retirement

funds, or annuities are wont to make such cities their permanent places of residence in their declining years. On the other hand, it is, for the most part, large industrial areas (like Gary, Birmingham, Detroit, Flint, and Akron, for example) which, in their rapid growth, and because of the opportunities that their industries offer, have attracted the young and vigorous in search of remunerative employment. —*Statistical Bulletin, Metropolitan Life Insurance Company.*

Per Cent of Population at Ages 65 and Over, In Certain Cities of the United States with a Total Population of 100,000 or More in 1930; Compared with Corresponding Percentages for the Same Cities in 1900, 1910 and 1920

City	Per Cent of Population at Ages 65 and Over 1930	1920	1910	1900
Long Beach, Calif.	9.2	10.9		
San Diego, Calif.	9.1	9.2	7.8	
Spokane, Wash.	7.0	4.6	2.6	1.9
Denver, Colo.	6.9	4.9	3.6	2.8
Portland, Ore.	6.6	4.7	3.2	2.5
Los Angeles, Calif.	6.2	6.2	4.8	4.4
Oakland, Calif.	6.1	5.2	4.9	5.0
Boston, Mass.	5.5	4.4	4.0	3.6
San Francisco, Calif.	5.4	4.3	3.8	4.0
Salt Lake City, Utah	5.2	4.0	3.3	3.8
St. Louis, Mo.	5.2	4.2	3.6	3.3
Philadelphia, Pa.	5.1	4.2	4.0	3.8
Miami, Fla.	4.5	3.4	.	
New Orleans, La.	4.1	3.7	3.8	3.8
Chicago, Ill.	4.0	3.2	2.8	2.4
New York, N. Y.	3.8	3.1	2.8	2.8
Chattanooga, Tenn.	3.3	3.0	2.8	2.3

CARBON MONOXIDE HAZARDS IN TRAFFIC ACCIDENTS IN CALIFORNIA

The Industrial Hygiene Service of the California State Department of Public Health, Dr. John P. Russell, Chief, has issued a preliminary report covering the carbon monoxide hazard in relation to California highway traffic casualties. Doctor Russell was assisted in making the survey of such hazards by Sergeant George S. Zelk, Bureau of Commercial Equipment, California Highway Patrol, and Fred R. Ingram, Senior Engineer, Industrial Hygiene Service, California State Department of Public Health.

In 1937, out of 37,968 traffic accidents on California highways, 597 were attributed officially to "sleepiness" of the drivers of the vehicles involved. It is admitted that fatigue due to long hours of driving and insufficient rest contributes to sleepiness and the theory that the inhalation of engine exhaust gases is responsible in part at least for otherwise inexplicable accidents led to the making of the survey.

Determinations of carbon monoxide in drivers' compartments of motor vehicles were made in nine widely scattered areas of California. This work was conducted on ascending and descending grades, as well as on level highways, under varying weather conditions, including snow, rain and desert heat, at various hours of the day and night, in temperatures ranging from 21 degrees to 74 degrees Fahrenheit, and relative humidities ranging from 18 per cent to 97 per cent.

Most of the vehicles tested were trucks and busses, for the reason that they all fall into the industrial hygiene classification. At a later time, under other auspices, similar tests on passenger cars may be undertaken.

A total of 1,105 vehicles was tested in the survey, and in 2 per cent of the vehicles tested the carbon monoxide concentration was found to be 100 parts per million or higher. Such a concentration of carbon monoxide is sufficient, in some cases, to cause headache, sleepiness and impaired judgment, when inhaled over a period of six to eight hours. In vehicles where such high concentrations are found, potentially dangerous conditions exist, and it is essential that the source of the dangerously high concentration be discovered.

Generally, the defect was traced to one or more of the following defects in the exhaust system: loose exhaust pipe or manifold connection, blown-out exhaust gasket, cracked exhaust manifold, leaky muffler or faulty design of the exhaust system. Exhaust gases escaping from these defects may enter the driver's compartment in large quantities through openings in and around the cab without the driver being aware of their presence. Correction of defects in the exhaust system greatly reduces the amount of carbon monoxide to which the driver is exposed.

In an effort to correlate the effects of inhalation of engine exhaust gases with the ability to drive motor vehicles, five volunteers, including the writers, underwent a series of tests of their steering ability, perception and reaction time, eye-hand and eye-foot coördination, visual acuity, field of vision, depth perception, speed estimation, color vision and glare resistance, before and after the inhalation of known amounts of carbon monoxide during a four-day period.

These tests were made with the coöperation of the Division of Drivers' Licenses, State Department of Motor Vehicles, using instruments and apparatus assembled by them for measuring driving skill. The subjects were first given a series of tests on the instruments to reduce the learning or practice factor. Blood pressure and pulse readings were taken, and determinations of blood saturation with carbon monoxide by the pyrotannic acid method were made. The subjects then spent one hour in an improvised gas chamber, a closed sedan into which engine exhaust gas was introduced by means of a hose from the exhaust pipe. The concentration of carbon monoxide in the chamber, determined by the two carbon monoxide indicators used in the survey, was kept constant by admitting small amounts of exhaust gas from time to time to replace that which leaked out gradually. At the end of the period of exposure, blood samples were again tested, and driving tests were repeated. It was found that exposure to the gas had very little effect on blood pressure, pulse rate, steering ability, visual acuity, field of vision, color vision, depth perception, speed estimation or glare resistance.

The blood saturation readings are not considered reliable, due to inaccuracies in color standards which were not discovered until after the tests were made. However, they suggest that carbon monoxide when inhaled in small amounts day after day has a cumulative effect, and is not completely eliminated from the body in a few hours after exposure, as is commonly believed. Further tests along this line have been planned for the near future.

Braking time represents the interval, in hundredths of a second, elapsing between the appearance of a red light and the application of the brake by the subject, seated behind a set of standard automobile controls, following a moving road scene by manipulating the steering wheel. It was found that the inhalation of an amount of carbon monoxide considered equivalent to that breathed by the driver of a vehicle containing 100 parts per million of the gas during a six to nine hour driving period caused a diminution in driving ability as indicated by headache, muscular weakness and tremors, mental confusion, and a small but definite lengthening of braking time. It is believed that this effect is greatly increased by fatigue such as is experienced by drivers of motor vehicles, particularly heavy trucks or similar vehicles. Plans are being made to conduct further tests under conditions more closely approximating actual driving conditions in order to minimize the learning factor and to include the fatigue factor in combination with exposure to carbon monoxide.

Following are the conclusions reached by Doctor Russell as a result of this preliminary survey:

It is believed that many otherwise unexplained highway accidents, in which experienced drivers, traveling along a straight highway in broad daylight after a good night's rest, run off the road or crash head-on into an approaching vehicle, are due to the driver unknowingly breathing dangerous amounts of exhaust gases escaping from defects in the exhaust system of the vehicle he is operating.

In the absence of defects in the exhaust system, it is believed that there is little danger of carbon monoxide poisoning from engine exhaust gases while driving along the highway.

The exhaust systems of motor vehicles should be inspected carefully, and periodically, for any defects which permit the escape of exhaust gases before reaching the exhaust pipe outlet.

Such defects should be corrected immediately to protect the driver from exposure to dangerous concentrations of carbon monoxide in the escaping gases.

Drivers' compartments of motor vehicles should be fitted with tight floor mats to exclude exhaust gases which may enter through cracks around floor boards. Openings in the dash should be closed as tightly as possible.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XI, No. 8, August, 1913

From Some Editorial Notes:

Ethical Proprietary and "Patent Medicine" All in One.—The favorite way—because the most economical—of introducing a nostrum to the public, is first to exploit it to the medical profession. This was the plan used abroad in introducing "——," the orange-flower flavored syrup of potassium guaiacol sulphonate, the essential constituent of which, the potassium guaiacol sulphonate, had first been popularized to the medical profession under the name, "——."

* * *

The College.—The JOURNAL has been asked by a number of our readers to give some serious information in regard to the proposed "College of Surgeons" and the method of its forming. It grew out of the clinical congress of surgery held in New York last year. These clinical congresses were started by Doctor Martin, editor of *Surgery, Gynecology and Obstetrics,* and a large number of doctors attended them, as clinics are always attractive and some of the most prominent surgeons in the country participated. The idea of forming a "college of surgeons" was sprung at the New York congress, and met with the approval of the mob of those in attendance. It is said that a corporation was then formed, of which Murphy and Martin were two of the five directors, and the proposed name was thus legalized. The scheme was talked over all over the country quite naturally and a meeting was called to take place in Washington in May. . . .

* * *

Preaching Advertising Honesty.—A most significant feature of the annual convention of the advertising men of the country, recently held in an eastern city, was the fact that on a Sunday a member of the Ad Association appeared, on invitation, in nearly every church in the city, and delivered an address in the nature of a prayer for honesty in advertising. Little over ten years ago the STATE JOURNAL began its existence with the statement that it would, so far as humanly possible, accept only honest advertisements and would be responsible to its patrons for the character of the advertising. It was the only publication in the United States to take that stand and a lot of people laughed at us for doing it. . . .

From an Original Article on "Gall-Tract Disease—Some Clinical Features Frequently Overlooked in Its Diagnosis," by C. M. Cooper, M.D., San Francisco.—Gall bladder or gall duct colic is essentially epigastric in origin and radiates upwards. With a stone in the cystic duct, the intense pain may be referred to the right of the lower dorsal vertebrae, and since a block in the cystic duct does not cause jaundice, the colic may be wrongly considered of renal origin. When the pain is epigastric, it may occasionally radiate to the legs or to the left arm. . . .

From an Original Article on "Surgical Treatment of Gall Bladder Disease," by Wallace I. Terry, M.D., San Francisco.—One need not look far back in medical literature to learn that gall bladder operations were infrequent almost up to the beginning of this century. The foundation work laid by Courvoisier, Kocher, Langenbuch, Bobbs, Sims, Riedel, McBurney and others attracted more or less attention, but the realization of the importance of gall bladder surgery came from the publication by Kehr, of Halberstadt, of some four hundred operations on the gall bladder and bile ducts. Later Mayo Robson and the Mayos reported large numbers of operations, and the various manipulative procedures were put on a firm basis. . . .

(Continued in Front Advertising Section, Page 15)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M.D.
Secretary-Treasurer

Board Proceedings

At a regular meeting of the Board of Medical Examiners held in Native Sons Hall, San Francisco, June 27 to 30, approximately 198 applicants took the examinations, including physicians and surgeons, drugless practitioners and chiropodists.

The legal calendar was unusually large and the following judgments were rendered by the Board:

Archibald E. Amsbaugh, M.D., San Francisco, charged with aiding and abetting, was on June 29, 1938, found guilty and placed on probation for a period of five years, during which time he shall abide by all the laws of the State of California and the United States and report at each San Francisco meeting during the period of his probation.

Robert V. Baker, M.D., Los Angeles, charged with violation of the terms of his probation, was on June 29, 1938, found guilty and his license to practice in the State of California was revoked.

Harvey J. Bosse, D.S.C. (chiropodist), San Francisco, cited on the basis of record of conviction, was found guilty and on June 30, 1938, his license to practice was revoked.

Mahlon C. Cooley, M.D., Los Angeles, cited on record of conviction in connection with the ambulance chasing-insurance fraud, was on June 30, 1938, found guilty and his license to practice in California was revoked.

Morris A. S. Frank, M.D., San Francisco, found guilty October 20, 1937, on narcotic dereliction, was on June 30, 1938, placed on probation for a period of five years, without narcotic privileges.

George Wellington Frasier, M.D., Pine Knot, cited for violation of the terms of his probation, was found guilty and on June 28, 1938, his license to practice was revoked.

Cary D. Frederick, M.D., Los Angeles, cited in connection with the ambulance chasing-insurance fraud trials, was found guilty and on June 28, 1938, placed on probation for a period of five years.

Albert B. Gray, M. D., Dorris, cited for aiding and abetting, was found guilty and on June 29, 1938, he was placed on five years' probation, during which he is prohibited from practicing from December 15, 1938, to March 15, 1939.

William B. Humphrey, M.D., Los Angeles, cited on record of conviction in connection with the Los Angeles insurance fraud cases, was found guilty and on June 30, 1938, his license to practice in this State was revoked.

Louis Kameny, M.D., Oakland, cited on record of conviction of insurance fraud, found guilty and on June 30, 1938, his license to practice in this State was revoked.

Albert B. Liddell, M.D., Los Angeles, cited in connection with the ambulance chasing-insurance fraud, found guilty and placed on probation on June 28, 1938, for a period of five years.

James E. McCue, M.D., San Francisco, cited on the use of fictitious name (Unipathic), was on June 30, 1938, found guilty and placed on probation for a period of five years, with the further penalty that from July 15, 1938, to January 15, 1939, he shall cease practice.

Thomas P. Moore, M.D., Los Angeles, cited on record of adjudication of insanity, license was on June 30, 1938, revoked.

Benjamin Naidis, M.D., Los Angeles, cited on a charge of aiding and abetting, was on June 29, 1938, found guilty and he was placed on five years' probation, with the further penalty that from July 15 to October 15, 1938, he shall cease the practice of medicine in the State of California.

Allen H. Peek, M.D., cited for violation of the terms of his probation, was on June 27, 1938, found guilty and was placed on probation for one year additional to the probationary period of five years imposed on him February 10, 1937.

(Continued in Front Advertising Section, Page 18)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

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*Manville, Ira A.: Use of Apple Powder in the Prevention and Cure of Summer Diarrheas, Arch Pediat. 55:76 (Feb.) 1938.

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"The Doctor": Now in a Permanent Home.—The $150,000 reproduction of the Sir Luke Fildes masterpiece, "The Doctor," first shown by the Petrolagar Laboratories at Chicago's Century of Progress Exposition in 1933, was recently presented by its owners to the new Rosenwald Museum of Science and Industry in that city.

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Citrus Juice Valuable Aid to Diabetics.—The increased use of vitamin rich foods, such as citrus fruits and fresh vegetables, has been found to increase the effectiveness of insulin in human diabetes. Dr. L. E. Detrick, of the department of chemistry on the Los Angeles campus of the University of California, made this report to members of the American Chemical Society, meeting at San Diego in connection with the annual convention of the American Association for the Advancement of Science.

Diabetes is usually considered to be due to a deficient production of a substance called insulin, explained Doctor Detrick. The function of insulin is to aid the body cells in their ability to store and burn sugar. With a deficiency of insulin the body can no longer use the sugar. The concentration of the sugar in the blood is raised so high that a great portion of it is lost by spilling into the urine. The physician administers insulin to the diabetic patient in order to prevent the rise of the sugar into the blood, and its loss.

Human beings are dependent upon their diet for an adequate source of vitamins. If the diet is lacking in one or more of these accessory food factors a deficiency disease

(Continued on Page 39)

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(Continued from Page 37)

develops. This disease is specific for the type of vitamin lacking in the diet.

The diabetic patient is treated therapeutically with a dict which is restricted with respect to carbohydrates, fats, and proteins. A diet adequate in these substances may still be deficient in vitamins. European as well as American investigators have considered diabetics as a group to be suffering from a lack of one or more of the vitamins.

Vitamin deficiency in the human body eventually results in a condition where the life processes in the tissue cells are impaired with respect to their ability to store and utilize sugar, Doctor Detrick explained. Insulin administered to a diabetic patient deficient in one or more of the vitamins does not act as effectively as in the normal individual. Increasing the vitamin intake aids the activity of insulin even to the point where the amount administered daily may be reduced.

Starvation, Alcohol Produce Cirrhosis.—Starvation and chronic alcoholism work hand in hand to produce the "drunkard's disease," cirrhosis of the liver, Dr. Charles L. Connor, professor of pathology at the University of California Medical School, told members of the American Medical Association in San Francisco.

In tracing the development of cirrhosis, Doctor Connor pointed out that it follows the steady infiltration of fat into the liver. This infiltration occurs, he said, where, because of lack of intake or absorption of food, fat is mobilized in the liver from fat deposits in other parts of the body, and where, because of internal interference with the metabolism of fat, the accumulated fat cannot be broken down for use by the body. In the first case infiltration is caused by lack of food, in the second by what might be called internal starvation. In both cases normal metabolism does not take place.

Normal metabolism is altered by the various wasting diseases, by diabetes, and by the introduction of poisons which prevent normal tissue oxidation. The most common of these poisons is alcohol.

Doctor Connor said that alcohol alone will cause some fatty infiltration of the liver but, as relative and sometimes absolute starvation is constantly associated with severe chronic alcoholism, the development of cirrhosis most often depends on a combination of the two.

Experiments conducted by Doctor Connor at the University revealed that carbodydrates seem to be the food elements which are most essential if cirrhosis is to be avoided. Fatty infiltration of the liver, he pointed out, nearly always depends on the fact that carbohydrate has become unavailable for tissue oxidation. The clinical histories of cases of definite cirrhosis, Doctor Connor said, all have several common factors. They have all drunk a great deal of alcohol during the last few years before death, and they have been upon a very irregular diet, sometimes amounting to complete fasting. This diet has nearly always been low in carbohydrates.

The San Francisco Session of the American Medical Association.—More than 6,000 physicians registered their attendance at the San Francisco session, making this the largest meeting of physicians ever held on the Pacific Coast. Noteworthy features of the meeting were the message of Miss Josephine Roche announcing the National Health Conference, to be held in Washington July 18-20, and the reply of the House of Delegates to that message (see pages 52 and 56), the numerous resolutions concerning the relations of physicians to hospitals and to the public, and the Scientific Exhibit. This exhibit has come to be recognized as a week of opportunities for graduate education not equaled by any similar opportunity available to the medical profession.

Contrary to the expectations of agitators who endeavored to incite disharmony and revolt among the physicians who represent the medical profession in the House of Delegates, the House displayed a singleness of purpose and soundness of attitude in its concern with the important questions which came before it. The fundamental principles adopted at Cleveland were reiterated as basic to a high quality of medical service. The importance of economic factors in a solution of the health problem was emphasized. The impor-

(Continued on Next Page)

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(Continued from Preceding Page)

tance of education of the public, using all the available means for reaching great numbers of people, was again recognized and the work of the headquarters office toward that end was unanimously approved.

In the scientific sections the attendance was frequently beyond the capacity of even the large halls which had been assigned to them. Moreover, many of the topics which have been in the forefront of medical consideration during the past year were exhaustively considered, including particularly blood dyscrasias, industrial diseases, and new methods in the treatment of psychiatric conditions.

Exhibitors in the Technical Exhibit expressed great satisfaction in the attendance and also in the newness of the audience which they were enabled to reach. This audience included great numbers of physicians from the Pacific Coast and Far Western states who do not frequently have opportunity to attend an annual session of the American Medical Association, with all the varied opportunities for medical advancement that such a session offers.

The medical profession of San Francisco, and particularly the officials who were concerned with the arrangements for the annual session, deserve the appreciation of all the members of the Association for the efficiency with which they worked. Particularly must credit be given to Dr. Howard Morrow, elected vice-president of the Association, as chairman of the local Committee on Arrangements. For a year he had been working on the plans for this session. An unfortunate illness made it impossible for him to participate in any of the activities of the week of the annual meeting, but even while incapacitated in bed he kept constantly in touch with the various affairs, ably assisted by two physicians, Dr. Junius B. Harris and Dr. J. C. Geiger, who took care of the details for him.

The many visitors to the annual session, including members of the House of Delegates, expressed almost unanimous satisfaction with the San Francisco session as the most successful medical meeting ever held on the Pacific Coast.—*Journal of the American Medical Association*, July 2, 1938.

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MUCH of the relationship of vitamin deficiency to deficiency diseases has been pioneered with the Albino rat. In maintaining vitamin B complex potent products, feeding in a ration devoid of and not borrowing any missing vitamin B factors has, throughout with us, been found the most dependable of all the tests. The Sherman-Chase technique is our preference for assaying the single B_1 factor, but the International test for B_1 where required is employed.

At recent medical exhibits lack of confidence among physicians in the rat test has been sensed. Obviously, one reason is that a single factor of the B vitamin group, held forth to have stated units of the antineuritic or the growth factor, may not show these units and results unless the other factors with which the units were gotten are at hand for the physician.

Physicians want clinical data with human subjects. Vegex can supply it.

The workers find Vegex of uniform potency in the B vitamin complex; in the extrinsic factor (anemia). Groen and Snapper also mention the intrinsic factor. The iron content, 0.05%—partly from the grain mash and partly reinforced with ferrous malate, with the copper complement of 0.00245%—the copper coming from the yeast and not added—undoubtedly have significance.

VEGEX IN ANEMIAS

Conservatism must be the rule in projecting products for use in human disease. The recovery and life of the patient, the professional reputation of the physician are at stake. The aid shown in the anemias has really lagged behind medical reports in presenting Vegex to the physicians. It is as it should be. With the use in macrocytic anemia reported by Sturgis, inquiries from physicians are renewed.

Groen and Snapper, in an article in the American Journal of the Medical Sciences, May 1937, entitled "Dietary Deficiency as a Cause of Macrocytic Anemia" reports a case as follows:

> "After a control period on a meat-free diet, during which the blood findings did not change, the child was given a mixed diet containing plenty of meat, fruit, vegetables, and one liter of milk daily (Fig. 6). The number of reticulocytes rose to 14%, hemoglobin and erythrocytes to 39% and 1,500,000 per c.mm., respectively. On further addition of three teaspoonfuls of '*Vegex*' (a preparation rich in B vitamins) to this diet a second reticulocyte response was obtained: the reticulocyte count rising this time to 18.4%. Hemoglobin and erythrocytes increased rapidly; April 5, 2 months after her admission, the hemoglobin was 80%, the erythrocytes 4,000,000 per c.mm.; the Price-Jones curve had returned to normal and the excess of urobilin had disappeared from the urine."
>
> "A *second gastric analysis* now showed a completely normal curve. One and one-half hour after the test meal the acid values were 36 free and 48 combined hydrochloric acid. There was an abundant flow of gastric juice from the tube (Fig. 7)."
>
> "After her discharge the patient was kept on a mixed diet. Her general and hematologic condition remained excellent as verified at a recent examination. Neither during the treatment nor after her discharge did she receive any liver or iron."

Some fifty-four medical reports of independent research show the value of Vegex in the anemias. Included are the American workers Strauss and Castle, Rhoads, Lawson and Payne, Sturgis, West, in a summary, finds that the extrinsic factor in Vegex had been established. This factor was postulated and demonstrated by Strauss and Castle.

In pernicious anemia, Vaughan in "The Anemias" summarizes that certain patients respond to "large doses." Wilkinson, Klein, Ungley, Wills state that Vegex is of distinct value in maintenance cases and definite value as an aid in the liver extract and other treatment.

With Vegex, liver diets are more regularly sustained. Ungley, in the Quart. Journ. Med., July, 1933, page 381, says "in addition to the effect of Vegex-Marmite on blood regeneration and upon symptoms referable to anemia, there occurred an increase in the sense of well-being, and a marked increase in appetite."

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Iron as Fe	0.048
Magnesium as Mg	0.13
Copper	0.00275
Manganese	Distinct Traces

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International B_1	25 units
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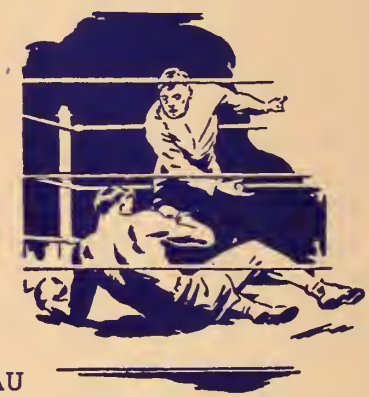
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RECENT ADVANCES IN THE SCIENCE OF NUTRITION

I. THE ROLE OF RIBOFLAVIN IN HUMAN NUTRITION

● In 1933, a series of articles on the vitamins was published, each article written by an authority in the field of nutrition. These papers served to summarize existing knowledge concerning these essential factors. During 1938 a similar series of articles has been issued. Comparison of related papers in these two series will indicate the most important advances in the science of nutrition which have been made in the course of the past five or six years.

In the first series of articles mentioned above, only two of the better known members of the old vitamin B complex received extended discussion (1). The more recent series, however, is characterized by the inclusion of a number of papers on riboflavin which, since 1932, has assumed a new significance in human nutrition (2). As compared with other factors with which it is often associated in nature, the rise of riboflavin to importance in human nutrition is somewhat anomalous.

For example, the effects upon humans of severe dietary deprivation of vitamin B_1 and the P-P factor are well known, in fact, such effects in themselves afford proof of the indispensable nature of these factors. While riboflavin is apparently concerned in cellular oxidation processes of mammals, the specific effect on humans of riboflavin deficiency is not known. Nevertheless, from the weight of evidence accumulated during the last five years, riboflavin is generally accepted as important in human nutrition. Authoritative opinion concerning riboflavin has been succinctly expressed as follows:

> "The fact that we do not know any specific human disease due to shortage of riboflavin is entirely compatible with the view that this substance is important in human nutrition. A detailed discussion of reasons for believing that riboflavin plays a role in the life process of the human as of other species would probably seem superfluous to a majority of readers at this date, and to a still larger majority in the future. Suffice it to point out that our species has evolved in the direction not of shortening the list of things it needs but of lengthening the list of things it can use to advantage." (2c)

Chemically, riboflavin is described as 6, 7 dimethyl-9 (d-l' ribityl) iso-alloxazine; a yellow-green, heat-stable pigment enjoying wide distribution in the plant and animal kingdoms. Many foods, therefore, of both plant and animal origin supply valuable amounts of this essential factor, specifically, fruits, vegetables, particularly the leafy pigmented types, and animal products such as milk and dairy products, meats, liver, and fish. It may, perhaps, be too early to estimate the daily human requirement for riboflavin. However, one rather liberal recommendation lists 600 units* as required daily by older children and adults; the estimated riboflavin requirement for younger children is somewhat less (2c).

In view of the above facts, attainment of an adequate intake of riboflavin would appear to be best insured by a varied dietary regime which includes the so-called "protective" foods. In the formulation of such diets, commercially canned foods may be particularly valuable. The older "vitamin G" assays —which are now known to measure principally the riboflavin contents of foods—indicate that modern canning procedures are without significant effect upon riboflavin. In addition, many foods valued for their contribution of this factor are canned commercially and hence are conveniently available at all seasons on practically every American market. Therefore commercially canned foods may be freely used in arranging such protective diets and they should materially assist in providing an adequate supply of this newly recognized dietary essential, riboflavin.

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*Bourquin-Sherman.

1. 1932. J. Amer. Med. Assn. 98, 2201 and 2283
1932. Ibid. 99, 26 and 121.
2a. 1938. J. Amer. Med. Assn. 110, 1105.
b. 1938. Ibid. 110, 1188.
c. 1938 Ibid. 110, 1278.

This is the fortieth in a series of monthly articles, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research. We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.



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President—William W. Roblee, 202 Mission Inn Rotunda, Riverside.

President-Elect—Charles A. Dukes, 601 Wakefield Building, 426 Seventeenth Street, Oakland.

Speaker of House of Delegates—Lowell S. Goin, 414 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Vice-Speaker of House of Delegates—John H. Graves, 977 Valencia Street, San Francisco.

Chairman of Council—Karl L. Schaupp, 490 Post Street, San Francisco.

Vice-Chairman—Junius B. Harris, Medico-Dental Building, 1127 Eleventh Street, Sacramento.

Chairman of Executive Committee—T. Henshaw Kelly, 830 Medico-Dental Building, 490 Post Street, San Francisco.

Chairman of the Committee on Public Relations—George G. Reinle, 532 Fifteenth Street, Oakland.

Past President—Howard Morrow, 384 Post Street, San Francisco.

Secretary-Treasurer—George H. Kress, 450 Sutter Street, Room 2004, San Francisco. Telephone DOuglas 0062.

Editor—George H. Kress, 450 Sutter Street, Room 2004, San Francisco.

General Counsel—Hartley F. Peart, Room 1800, 111 Sutter Street, San Francisco.

Associate General Counsel—Hubert T. Morrow, Van Nuys Building, 210 West Seventh Street, Los Angeles.

Councilors

(In addition to the elected district and at-large Councilors, the Council has as ex officio members, the general officers and the Chairman of the Committee on Public Relations. Chairman of Council, Karl L. Schaupp; Secretary, George H. Kress.)

District Councilors

First District—Imperial, Orange, Riverside, San Bernardino and San Diego Counties, Calvert L. Emmons (1941), 206 Emmons Building, Ontario.

Second District—Los Angeles County, Carl R. Howson (1939), 1114 Wilshire Medical Bldg., 1930 Wilshire Boulevard, Los Angeles.

Third District—Kern, San Luis Obispo, Santa Barbara and Ventura Counties, Louis A. Packard (1940), 563 Haberfelde Building, Bakersfield.

Fourth District—Calaveras, Fresno, Inyo, Kings, Madera, Mariposa, Merced, Mono, San Joaquin, Stanislaus, Tulare and Tuolumne Counties, Axcel E. Anderson (1941), Medical Group Building, 1759 Fulton Street, Fresno.

Fifth District—Monterey, San Benito, San Mateo, Santa Clara and Santa Cruz Counties, Alfred L. Phillips (1939), Farmers and Merchants Bank Building, Santa Cruz.

Sixth District—San Francisco County, Karl L. Schaupp (1940), 530 Medico-Dental Building, 490 Post Street, San Francisco.

Seventh District—Alameda and Contra Costa Counties, Oliver D. Hamlin (1941), 389 Thirtieth Street, Oakland.

Eighth District—Alpine, Amador, Butte, Colusa, El Dorado, Glenn, Lassen, Modoc, Nevada, Placer, Plumas, Sacramento, Shasta, Sierra, Sutter, Tehama, Yolo, and Yuba Counties, Frederick N. Scatena (1939), Medico-Dental Building, 1127 Eleventh Street, Sacramento.

Ninth District—Del Norte, Humboldt, Lake, Marin, Mendocino, Napa, Siskiyou, Solano, Sonoma and Trinity Counties, Henry S. Rogers (1940), Petaluma.

Councilors-at-Large

Harry H. Wilson (1941), 1919 Wilshire Boulevard, Los Angeles.

C. O. Tanner (1939), 3255 Fourth Street, San Diego.

William H. Kiger (1940), 911 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

Philip K. Gilman (1941), 2000 Van Ness Avenue, San Francisco.

T. Henshaw Kelly (1939), 830 Medico-Dental Building, 490 Post Street, San Francisco.

Junius B. Harris (1940), Medico-Dental Building, 1127 Eleventh Street, Sacramento.

Standing Committees

Executive Committee

The President, the President-elect, the Speaker of the House of Delegates, the Chairman of the Council, the Chairman of the Auditing Committee, the Chairman of the Committee on Public Relations, the Past President, the Secretary-Treasurer, and the Editor. (T. Henshaw Kelly, chairman; George H. Kress, secretary.)

Auditing Committee

O. D. Hamlin	Oakland	1939
T. Henshaw Kelly (Chairman)	San Francisco	1939
Philip K. Gilman	San Francisco	1939

Members of the Auditing Committee are appointed each year by the Chairman of the Council.

Committee on Associated Societies and Technical Groups

William H. Geistweit	San Diego	1939
John V. Barrow (Chairman)	Los Angeles	1940
Edwin L. Bruck	San Francisco	1941

Committee on Health and Public Instruction

W. R. P. Clark	San Francisco	1939
Benjamin W. Black	Oakland	1940
Fred B. Clarke (Chairman)	Long Beach	1941

Committee on History and Obituaries

J. Marion Read	San Francisco	1939
A. Elmer Belt	Los Angeles	1940
Frank R. Makinson (Chairman)	Oakland	1941
Secretary ex officio		
Editor ex officio		

Committee on Hospitals, Dispensaries and Clinics

W. Earl Mitchell (Chairman)	Oakland	1939
Karl L. Schaupp	San Francisco	1940
George Dawson	Napa	1941

Committee on Industrial Practice

Philip Stephens (Chairman)	Los Angeles	1939
Harry E. Zaiser	Orange	1940
Morton R. Gibbons	San Francisco	1941

Committee on Medical Defense

Fred R. De Lappe	Modesto	1939
John P. Nuttall	Santa Monica	1940
George G. Reinle (Chairman)	Oakland	1941

Committee on Medical Economics

William R. Molony, Sr.	Los Angeles	1939
Edward M. Pallette	Los Angeles	1940
John H. Graves (Chairman)	San Francisco	1941

Committee on Medical Education and Medical Institutions

Loren R. Chandler (Chairman)	San Francisco	1939
John B. Doyle	Los Angeles	1940
B. O. Raulston	Los Angeles	1941

Committee on Membership and Organization

Dewey R. Powell	Stockton	1939
G. Dan Delprat	San Francisco	1940
George D. Maner (Chairman)	Los Angeles	1941

Committee on Postgraduate Activities

F. F. Gundrum	Sacramento	1939
John C. Ruddock (Chairman)	Los Angeles	1940
F. E. Clough	San Bernardino	1941
Secretary ex officio		

Committee on Publications

Oscar Reiss	Los Angeles	1939
Ralph Eusden (Chairman)	Los Angeles	1940
Ruggles A. Cushman	Talmage	1941
Secretary ex officio		
Editor ex officio		

Committee on Public Policy and Legislation

T. Henshaw Kelly	San Francisco	1939
E. T. Remmen	Glendale	1940
Junius B. Harris (Chairman)	Sacramento	1941
President ex officio		
President-elect ex officio		

Committee on Scientific Work

F. M. Pottenger	Monrovia	1939
Lemuel P. Adams	Oakland	1940
J. Homer Woolsey	Woodland	1941

William H. Barrow, Secretary of Section on General Medicine, ex officio

Ray B. McCarty, Secretary of Section on General Surgery, ex officio

George H. Kress (Chairman), ex officio.

Committee on Public Relations

The Committee on Public Relations consists of the chairmen of the following standing committees and of certain general officers of the Association, all serving ex officio. The chairman of the committee is George G. Reinle, the secretary is George H. Kress. The director of the Department of Public Relations is George H. Kress. The chairman of the Committee on Public Relations is ex officio a member of the Council.

Fred B. Clarke.....Chair., Com. on Health and Public Instruction
W. Earl Mitchell.....Chair., Com. on Hospitals, Dispensaries, Clinics
Philip Stephens.....Chair., Com. on Industrial Practice
George G. Reinle.....Chair., Com. on Medical Defense
George D. Maner....Chair., Com. on Membership and Organization
John H. Graves.....Chair., Com. on Medical Economics
Junius B. Harris.....Chair., Com. on Public Policy and Legislation
Alson R. Kilgore.....Chair., Cancer Commission
John C. Ruddock.....Chair., Com. on Postgraduate Activities
William W. Roblee.....President of California Medical Association
Charles A. Dukes.....President-elect
George H. Kress.....Secretary-Treasurer

Communications for the Public Relations Department should be addressed to the Director, George H. Kress, M. D., Room 2004, 450 Sutter Street, San Francisco.

Cancer Commission

Alson R. Kilgore (Chairman)	San Francisco	1939
Henry J. Ullmann	Santa Barbara	1939
Clarence G. Toland	Los Angeles	1939
Charles A. Dukes	Oakland	1940
Lyell C. Kinney (Vice-Chairman)	San Diego	1940
Otto H. Pflueger (Secretary)	San Francisco	1940
Orville Meland (Sec'y for Southern Section)	Los Angeles	1941
A. Herman Zeiler	Los Angeles	1941
Gertrude Moore	Oakland	1941

Communications for the Cancer Commission should be addressed to the Secretary, Otto H. Pflueger, M. D., Room 2004, 450 Sutter Street, San Francisco.

(Roster lists of officers of scientific section, component county societies, Woman's Auxiliary, A. M. A. delegates, special committees, etc., are continued on advertising pages 4 and 6.)

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Rates, Information and Booklet on Request

ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to promptly notify "California and Western Medicine" when changes are indicated in their roster information.)

Alameda County Medical Association
2404 Broadway, Oakland
President, Clarence A. DePuy, 230 Grand Avenue, Oakland.
Secretary, Gertrude Moore, 2404 Broadway, Oakland.
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

Butte County Medical Society
President, Raymond Kilduff, 322½ Meyers Street, Oroville.
Secretary, J. O. Chiapella, 131 Broadway, Chico.
Meeting, *Second Thursday.*

Contra Costa County Medical Society
President, Selby H. Marks, Grabstein Bldg., Pittsburg.
Secretary, Thomas J. Dozier, 202 G Street, Antioch.
Meeting, *Second Tuesday, 8 p. m.*

Fresno County Medical Society
President, Henry A. Randel, Box 2308, Fresno.
Secretary, Lester R. Nielson, 1006 Mattei Bldg., Fresno.
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

Humboldt County Medical Society
President, Francis M. Stump, Crescent City.
Secretary, Lawrence A. Wing, Fifth and F Streets, Eureka.
Meeting, *First Thursday.*

Imperial County Medical Society
President, Henry B. Graeser, 115 E. Fifth Street, Holtville.
Secretary, William A. Clarke, Holtville.
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

Kern County Medical Society
President, Harry W. Lange, Hopkins Bldg., Bakersfield.
Secretary, C. S. Compton, 428 C Street, Bakersfield.
Meeting, *Third Thursday, 8:30 p. m.*

Kings County Medical Society
President, P. K. Edmunds, Corcoran.
Secretary, William A. Johnstone, Hanford.
Meeting, *Second Monday, 8 p.m., Legion Hall, Hanford.*

Lassen-Plumas-Modoc County Medical Society
President, C. I. Burnett, Susanville.
Secretary, Fred J. Davis, Jr., Westwood.
Meeting, *On Call.*

Los Angeles County Medical Association
1925 Wilshire Boulevard, Los Angeles
President, Ralph B. Eusden, M. D., 412 Professional Bldg., 117 East 8th St., Long Beach.
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

Marin County Medical Society
President, W. Scott Polland, Albert Building, San Rafael.
Secretary, Carl W. Clark, 510 B Street, San Rafael.
Meeting, *Fourth Thursday, 6:30 p. m., Marin Golf and Country Club.*

Mendocino-Lake County Medical Society
President, Charles A. Craig, Lakeport.
Secretary, Robert B. Smalley, Willits.
Meeting, *On Call.*

Merced County Medical Society
President, E. M. Soderstrom, Merced.
Secretary, Fred O. Lien, Shaffer Bulding, Merced.
Meeting, *Third Thursday, Hotel Tioga, Merced.*

Monterey County Medical Society
President, Curtis B. Gorham, 215 Franklin Street, Monterey.
Secretary, Harold R. Lusignan, 215 Franklin Street, Monterey.
Meeting, *First Thursday.*

Napa County Medical Society
President, Walter Rapaport, Imola.
Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

Orange County Medical Society
President, G. Wendell Olson, 211 No. Pomona St., Fullerton.
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital, Orange.*

Placer County Medical Society
President, C. Ettrick Lewis, 59 Lincoln Ave., Auburn.
Secretary, Robert A. Peers, Colfax.
Meeting, *At Call of President.*

Riverside County Medical Society
President, D. D. Roos, Corona.
Secretary, Thomas A. Card, 3616 Main Street, Riverside.
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

Sacramento Society for Medical Improvement
President, Dave Dozier, California State Life Building, Sacramento.
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

San Benito County Medical Society
President, J. M. O'Donnell, Hollister.
Secretary, L. E. Smith, Hollister.
Meeting, *At Call of President.*

San Bernardino County Medical Society
President, Delbert B. Williams, 401 North Eighth Street, Colton.
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

San Diego County Medical Society
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, Bryant R. Simpson, 1205 Medico-Dental Building, San Diego.
Secretary, W. H. Newman, Medico-Dental Building, San Diego.
Meeting, *Second Tuesday, El Cortez Hotel.*

San Francisco County Medical Society
2180 Washington Street, San Francisco
President, William C. Voorsanger, 490 Post St., San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

San Joaquin County Medical Society
President, A. C. Boehmer, Box 306, Lodi.
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

San Luis Obispo County Medical Society
President, Frederick R. Mugler, 1170 Marsh Street, San Luis Obispo.
Secretary, E. D. Anderson, 1120 Morro Street, San Luis Obispo.
Meeting, *Third Saturday, 6:30 p. m., Mulholland's Grill, San Luis Obispo.*

(Roster lists continued on advertising page 6)

San Mateo County Medical Society
President, Hartzell H. Ray, 23 Second Avenue, San Mateo.
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

Santa Barbara County Medical Society
President, E. J. Lamb, 1515 State Street, Santa Barbara.
Secretary, J. Jerome Rupp, 16 E. Junipero Street, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

Santa Clara County Medical Society
President, E. O. G. Schmitt, 608 Medico Dental Bldg., San Jose.
Secretary, Leslie B. Magoon, Medico-Dental Building, San Jose.
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

Santa Cruz County Medical Society
President, Dean S. Woodard, Stoesser Bldg., Watsonville.
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.
Meeting, *First Monday, 7:30 p. m., Club Rio del Mar, Aptos.*

Shasta Connty Medical Society
President, Mathew D. Pratt, Fall River Mills.
Secretary, Morton J. Murphy, Shasta County Hospital, Redding.
Meeting, *Second Monday.*

Siskiyou County Medical Society
President, J. B. McGuire, Mt. Shasta.
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.
Meeting, *Second Sunday.*

Solano County Medical Society
President, Ream S. Leachman, 727 Sonoma St., Vallejo.
Secretary, John W. Green, Box 539, Vallejo.
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

Sonoma County Medical Society
President, Alfred A. Thurlow, 505 B St., Santa Rosa.
Secretary, C. M. Carlson, 534 B Street, Santa Rosa.
Meeting, *Second Thursday.*

Stanislaus County Medical Society
President, Joseph L. Azevedo, Jr., 1024 "J" Street, Modesto.
Secretary, Hoyt R. Gant, 401 Beaty Building, Modesto.
Meeting, *Second Friday.*

Tehama County Medical Society
President, Donald E. Thompson, Red Bluff
Secretary, F. J. Bailey, Red Bluff.
Meeting, *At Call of President.*

Tulare County Medical Society
President, E. R. Zumwalt, Tulare.
Secretary, Karl F. Weiss, Security First National Bank Building, Visalia.
Meeting, *Sunday Evening once a month.*

Ventura County Medical Society
President, Grundy C. Coffey, Bank of America Building, Ventura.
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.
Meeting, *Second Tuesday, Ventura County Country Club.*

Yolo-Colusa-Glenn County Medical Society
President, Charles S. Roller, Woodland Clinic, Woodland.
Secretary, W. J. Blevins, Jr., Woodland.
Meeting, *First Tuesday.*

Yuba-Sutter County Medical Society
President, Neal M. Loomis, Yuba City.
Secretary, Fred W. Didier, Wheatland.
Meeting, *Second Tuesday.*

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Anesthesiology

Chairman, John G. Dunlop, 168 So. Kingsley Drive, Los Angeles.
Secretary, Adena C. Dutton, 1955 Broadway, San Francisco.

Dermatology and Syphilology

Chairman, Norman N. Epstein, 450 Sutter Street, San Francisco.
Vice-Chairman, Franklin I. Ball, 6253 Hollywood Boulevard, Hollywood.
Secretary, Arne E. Ingels, 490 Post Street, San Francisco.

Eye, Ear, Nose and Throat

Chairman, Clifford B. Walker, 427 West Fifth Street, Los Angeles.
Vice-Chairman, Harry J. Wiley, 2701 Florence Street, Huntington Park.
Secretary, Dewey R. Powell, 242 No. Sutter Street, Stockton.

General Medicine

Chairman, Howard F. West, 602 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.
Secretary, William H. Barrow, 1400 Medico-Dental Building, San Diego.

General Surgery

Chairman, Loren R. Chandler, Stanford University Medical School, San Francisco.
Secretary, Ray B. McCarty, 3616 Main Street, Riverside.
Assistant Secretary, Frederick S. Foote, Dante Hospital, San Francisco.

Industrial Medicine and Surgery

Chairman, Harvey G. McNeil, 523 West Sixth Street, Los Angeles.
Vice-Chairman, George H. Sanderson, 242 North Sutter Street, Stockton.
Secretary, John S. Stephens, 1136 W. Sixth Street, Los Angeles.

Neuropsychiatry

Chairman, John B. Doyle, 1930 Wilshire Boulevard, Los Angeles.
Secretary, George S. Johnson, Stanford University Hospital, San Francisco.

Obstetrics and Gynecology

Chairman, George W. Coon, 3770 Twelfth Street, Riverside.
Vice-Chairman, John N. Ewer, 411 Thirtieth Street, Oakland.
Secretary, William Benbow Thompson, 1930 Wilshire Boulevard, Los Angeles.

Pathology and Bacteriology

Chairman, Alvin G. Foord, Huntington Memorial Hospital, Pasadena.
Secretary, Roy W. Hammack, 657 South Westlake Boulevard, Los Angeles.
Assistant Secretary, Paul H. Guttman, 1127 Eleventh Street, Sacramento.

Pediatrics

Chairman, Harold K. Faber, Stanford Hospital, San Francisco.
Secretary, Hartzell H. Ray, 23 Second Avenue, San Mateo.
Assistant Secretary, W. W. Belford, 601 Medico-Dental Building, San Diego.

Radiology

Chairman, Karl M. Bonoff, 1930 Wilshire Boulevard, Los Angeles.
Secretary, Carl D. Benninghoven, Mills Memorial Hospital, San Mateo.

Urology

Chairman, Carl F. Rusche, 905 Taft Building, 1680 North Vine Street, Hollywood.
Secretary, John A. Dougherty, 3115 Webster Street, Oakland.

Delegates and Alternates to the American Medical Association

DELEGATES		ALTERNATES
Elbridge Best, San Francisco	(1938-1939)	Robert S. Stone, San Francisco
Lyell C. Kinney, San Diego	(1938-1939)	Bon. O. Adams, Riverside
J. P. Nuttall, Los Angeles	(1938-1939)	F. M. Pottenger, Los Angeles
George G. Reinle, Oakland	(1939-1940)	Frank R. Makinson, Oakland
Edward M. Pallette, Los Angeles	(1939-1940)	William H. Kiger, Los Angeles
Robert A. Peers, Colfax	(1939-1940)	F. F. Gundrum, Sacramento
William R. Molony, Sr., Los Angeles	(1939-1940)	John C. Ruddock, Los Angeles

Special Committees

Committee on Animal Experimentation

Philip Gilman, Chairman
Charles A. Dukes — Loren R. Chandler

Committee on Maternal Welfare

T. Henshaw Kelly.....San Francisco
Lyle G. McNeile.....Los Angeles
Ralph J. Thompson.....Los Angeles
T. Floyd Bell.....Oakland
Hans F. Schluter.....Sacramento

Committee on Golden Gate International Exposition

T. Henshaw Kelly, Chairman
Edward M. Pallette — Charles A. Dukes
Karl F. Meyer — Hartley F. Peart

Committee on Hospitals

Louis A. Packard, Chairman.....Bakersfield
Axcel E. Anderson.....Fresno
Calvert L. Emmons.....Ontario

Committee on Syphilis

Howard Morrow, Chairman.....San Francisco
Charles W. Barnett.....San Francisco
William H. Goeckerman.....Los Angeles

Committee on a Qualifying Certificate (Basic Science) Law

George H. Kress, (General Chairman) San Francisco

Morton R. Gibbons, Chairman (for Bay Region), San Francisco

Edward M. Pallette, Chairman (for Soutbern California), Los Angeles

Junius B. Harris, Chairman (for Remainder of State), Sacramento

Woman's Auxiliary to the California Medical Association

State Auxiliary Officers

President, Mrs. Clifford A. Wright, 454 So. Irving Boulevard, Los Angeles.
President-Elect, Mrs. Frederick N. Scatena, 1400 Forty-first Street, Sacramento.
First Vice-President, Mrs. A. E. Anderson, 1035 Cambridge Street, Fresno.
Second Vice-President, Mrs. George Calvin, 277 Euclid Avenue, Oakland.
Recording Secretary, Mrs. G. Wendell Olsen, 219 Buena Vista Drive, Fullerton.
Corresponding Secretary, Mrs. E. Eric Larson, 126 Fremont Place, Los Angeles.
Treasurer, Mrs. Harry O. Hund, 400 Grand Avenue, San Rafael.

Officers of County Auxiliaries

Alameda County — President, Mrs. Frank Baxter, 33 Bowling Drive, Oakland.
Butte County—President, Mrs. N. T. Enloe, 488 East Third Street, Chico.
Contra Costa County—President, Mrs. Melvin A. Stauffer, Pittsburg.
Fresno County—President, Mrs. C. M. Vanderburgh, 518 Terrace Ave., Fresno.
Kern County—President, Mrs. P. N. Root, 2214 Cedar St., Bakersfield.
Lassen-Plumas-Modoc County — President, Mrs. G. R. Fortson, 912 Lassen Street, Susanville.
Los Angeles County—President, Mrs. William H. Leake, 609 North Palm Drive, Los Angeles.
Marin County—President, Mrs. Bernard J. Conroy, 402 Cascade Drive, Fairfax.
Merced County—President, Mrs. E. M. Soderstrom, 49 Twenty-second Street, Merced.
Monterey County — President, Mrs. Garth Parker, 430 So. Main Street, Salinas.
Orange County—President, Mrs. Hiram Currey, 2101 North Ross Street, Santa Ana.
Riverside County—President, Mrs. W. W. Roblee, 3117 Orange Ave., Riverside.
Sacramento County—President, Mrs. George Spencer, 1915 Twenty-first Street, Sacramento.
San Diego County—President, Mrs. Chester O. Tanner, 2454 Presidio, San Diego.
San Francisco County — President, Mrs. Thomas E. Gibson, 2205 Pacific Avenue, San Francisco.
San Joaquin County—President, Mrs. George K. Wever, 2413 Dwight Way, Stockton.
San Luis Obispo County—President, Mrs. Charles R. Kennedy, 1233 Olive Street, Paso Robles.
San Mateo County — President, Mrs. Carl Benningboven, 140 Clark Drive, San Mateo.
Santa Barbara County—President, Mrs. H. E. Henderson, 1600 Oramus Road, Santa Barbara.
Santa Clara County—President, Mrs. M. D. Baker, 1142 Lincoln Ave., San Jose.
Santa Cruz County—President, Mrs. Alfred L. Phillips, 220 Escalon Drive, Santa Cruz.
Tulare County—President, Mrs. J. C. McClure, Box 36, Lindsay.

Miscellaneous California Medical Organizations

Department of Public Health of the State of California

San Francisco—State Office Building, McAllister and Larkin Streets, UNderhill 8700.
Sacramento—State Office Building, Tenth and L streets. CApital 2800.
Los Angeles—State Office Building, 217 West First Street. MAdison 1281.
President, Howard Morrow, San Francisco.
Director, Walter M. Dickie, State Building, San Francisco.

California Northern District Medical Society

President—John H. White, Chico.
Secretary—J. Homer Woolsey, Woodland Clinic, Woodland.

Board of Medical Examiners of the State of California

San Francisco, Room 214, 515 Van Ness Avenue.
Los Angeles, 906 State Building.
Sacramento, 420 State Office Building.
President, William R. Molony, Sr., Los Angeles.
Secretary, C. B. Pinkham, Room 214, 515 Van Ness Avenue, San Francisco.

Southern California Medical Association

President, William H. Barrow, 1400 Medico-Dental Building, San Diego.
Secretary, John B. Doyle, 501 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

The Public Health League of California

Executive Secretary, Ben H. Read. San Francisco office, 450 Sutter Street, Los Angeles office, Room 563, 1151 South Broadway.

Better Health Foundation

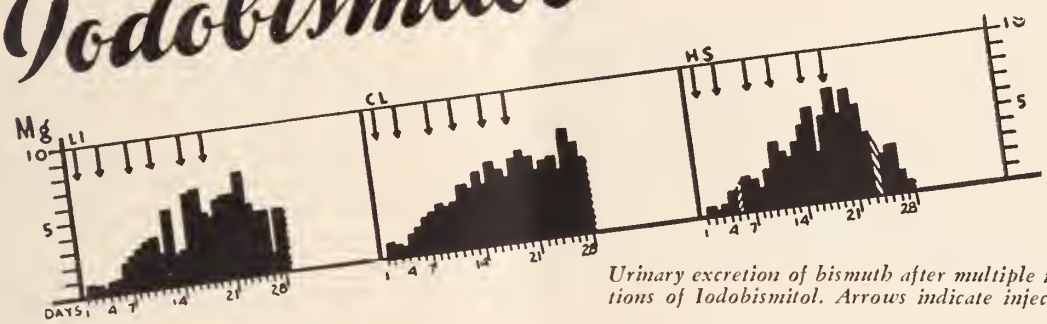
President, Reginald Knigbt Smitb,* 490 Post Street, San Francisco.
Chairman, Executive Committee, Walter B. Coffey, 65 Market Street, San Francisco.
Treasurer, John Gallwey, 1195 Busb Street, San Francisco.
Secretary, Celestine J. Sullivan, 490 Post Street, San Francisco.

* Deceased.



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Urinary excretion of bismuth after multiple injections of Iodobismitol. Arrows indicate injections

ACCORDING to the Council on Pharmacy and Chemistry—"Probably those compounds of bismuth will have the best spirocheticidal effect that are able to keep the therapeutic level of bismuth at such a continuous height that it will be reflected in the urine with a level of 0.002 Gm. or more of metallic bismuth per day."

That Iodobismitol with Saligenin meets this requirement was shown by a recent clinical study.[1] Two-cc. doses of Iodobismitol with Saligenin were given twice weekly for three weeks. The charts illustrated above show the urinary excretion over a period of four weeks—49% of the bismuth having been excreted. Iodobismitol with Saligenin was the only preparation so studied capable of maintaining a therapeutically active concentration of bismuth in the blood stream as manifested by a constant urinary excretion equivalent to or in excess of 0.002 Gm. daily.

Iodobismitol with Saligenin may be used alone or with the arsenicals in both early and late syphilis. It presents bismuth largely in anionic (electro-negative) form. It is a propylene glycol solution containing 6% sodium iodobismuthite, 12% sodium iodide, and 4% saligenin (a local anesthetic).

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For literature write to Professional Service Dept., 745 Fifth Ave., New York

[1] Sollmann, T., Cole, H. N., Henderson, K., *et al.: Amer. J. Syph., Gon. & Ven. Dis.* 21:480 (Sept.), 1937.

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The red tape begins to unwind and before the spool runs out all of medical practice may be wrapped in its meshes.—*Journal of the American Medical Association,* August 13, 1938.

It seems an inseparable accompaniment of the advancement of knowledge that things once thought to be units turn out to be composites: the magic prism of investigation is always splitting up apparent entities into an ever-increasing number of new elements.—E. O. Jordan.

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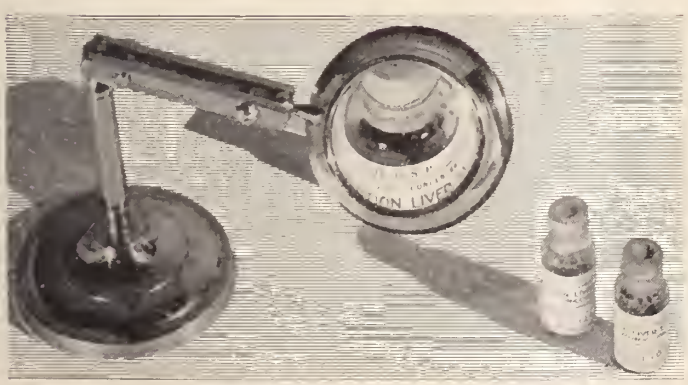
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Can Whooping Cough Be Controlled?*—In the extremely rapid advance made by the medical profession against communicable diseases since the beginning of the present century, whooping cough has proved most intractable. Typhoid, diphtheria, measles, and scarlet fever have all been brought under partial control. For example, the death rate from diphtheria in 1900 to 1904* was 32.8 per 100,000; today the corresponding rate is 2. There has been a decline in the death rate from whooping cough, but nothing comparable to the success in combating diphtheria. Whereas diphtheria formerly had a death rate three times that of whooping cough, the ratio for the period 1931-1935 was three deaths from whooping cough (nine out of every ten deaths charged to whooping cough are due to complicating bronchopneumonia) to two from diphtheria.*

Until recently physicians have lacked in whooping cough the specific prophylactic and therapeutic measures which have enabled them to control other communicable diseases. Prophylactic immunization and specific antitoxin therapy have all but mastered diphtheria. Also, in typhoid fever, smallpox, scarlet fever, etc., specific prophylactic or therapeutic measures are available. In whooping cough prophylactic measures of promise were lacking until Dr. Louis W. Sauer in 1934 made known his studies with a special pertussis vaccine which now bears his name.

In 1936 the incidence and death rate of whooping cough hit new lows. Some idea of the improvement is obtained from a comparison of statistics for the years 1930-1936. From 1930 to 1935, inclusive, there were 1,179,029 reported cases of whooping cough in the United States, with 30,958 deaths; stated differently, one case of every thirty-eight reported terminated fatally. In 1936 there were 147,237 cases, with 2,583 deaths—a fatality rate of one per fifty-eight reported cases. Complete statistics for 1937 are not yet available, but data furnished by twenty-nine states and the District of Columbia indicate that the decrease in mortality rate will be maintained.

* Statistical Bulletin, Metropolitan Life Ins. Co., 19:8, 1938.

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BOOKS RECEIVED

Diseases of the Skin for Practitioners and Students. By George Clinton Andrews, A.B., M.D., Associate Professor of Dermatology, College of Physicians and Surgeons, Columbia University; Chief of Clinic, Department of Dermatology, Vanderbilt Clinic; Fellow of the American Medical Association, of the American College of Physicians, and of the New York Academy of Medicine. Second Edition, Entirely Reset. Cloth. Pp. 899, with 938 illustrations. Price, $10 net. Philadelphia: W. B. Saunders Company, 1938.

A Textbook of Gynecology. By Arthur Hale Curtis, M.D., Professor and Chairman of the Department of Obstetrics and Gynecology, Northwestern University Medical School; Chief of the Gynecological Service, Passavant Memorial Hospital, Chicago, Illinois. Third Edition, Reset. Cloth. Pp. 603, with 318 illustrations. Price, $7 net. Philadelphia: W. B. Saunders Company, 1938.

Pathological Technique. By Frank Burr Mallory, A.M., M.D., S.D., Consulting Pathologist to the Boston City Hospital, Boston, Mass. Cloth. Pp. 434, with 14 illustrations. Price, $4.50 net. Philadelphia: W. B. Saunders Company, 1938.

The American Illustrated Medical Dictionary. A complete dictionary of the terms used in Medicine, Surgery, Dentistry, Pharmacy, Chemistry, Nursing, Veterinary Science, Biology, Medical Biography, etc. By W. A. Newman Dorland, A.M., M.D., F.A.C.S., Lieutenant-Colonel, M.R.C., United States Army; Member of the Committee on Nomenclature and Classification of Diseases of the American Medical Association; Editor of the "American Pocket Medical Dictionary." With the Collaboration of E. C. L. Miller, M.D., Medical College of Virginia. Eighteenth Edition, Revised and Enlarged. Flexible, and Stiff Binding. Pp. 1607, with 942 illustrations, including 283 portraits. Price, Plain, $7 net. Thumb-indexed, $7.50 net. Philadelphia: W. B. Saunders Company, 1938.

The Horse and Buggy Doctor. By Arthur E. Hertzler, M.D. Cloth. Pp. 322. Price, $2.75. New York: Paul B. Hoeber, 1938.

Vitamin B_1 (Triamin) and Its Use in Medicine. By Robert R. Williams, Sc.D., of the Bell Telephone Laboratories, and Tom D. Spies, M.D., Associate Professor of Medicine, University of Cincinnati. Cloth. Pp. 411. Price, $5. New York: The Macmillan Company, 1938.

Outline of Roentgen Diagnosis. An Orientation in the Basic Principles of Diagnosis by the Roentgen Method. By Leo G. Rigler, B.S., M.B., M.D., Professor of Radiology, University of Minnesota, Minneapolis. Paper. Pp. 212. Price, $3. Philadelphia and New York: J. B. Lippincott Company.

The Rockefeller Foundation Annual Report, 1937. Paper. Pp. 506.

The Vitamins and Their Clinical Applications. A Brief Manual. By Prof. Dr. W. Stepp, Director of the I. medical clinic, University of Munich; Doz. Dr. Kuhnau, Director of the municipal institute for balneology and metabolism, Wiesbaden; Dr. H. Schroeder, Associate at the I. medical clinic, University of Munich. Translated by Herman A. H. Bouman, M. D., Minneapolis, Minnesota. Cloth. Pp. 173. Price, $4.50. Milwaukee: The Wisconsin Cueno Press, Inc., 1938.

The Technique of Contraception. An Outline. By Eric M. Matsner, M.D. Foreword by Frederick C. Holden, M.D. Fourth Edition. Paper. Pp. 50. Baltimore: The Williams & Wilkins Company, 1938.

(Continued on Page 16)



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BOOKS RECEIVED

(Continued from Page 13)

The Story of Lucky Strike. By Roy C. Flannagan. Cloth. Pp. 71.

Cancer. With Special Reference to Cancer of the Breast. By R. J. Behan, M. D., Dr. Med. (Berlin), F. A. C. S., Co-founder and Formerly Director of the Cancer Department of the Pittsburgh Skin and Cancer Foundation, Pittsburgh, Pa. Cloth. Pp. 844, illustrated. Price, $10. St. Louis: The C. V. Mosby Company, 1938.

Macmillan's Modern Dictionary. Compiled and Edited under the Supervision of Bruce Overton. Cloth. Pp. 1466. Price, $3.50. New York: The Macmillan Company, 1938.

It is within the power of man to rid himself of every parasitic disease.—Pasteur.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 248)

composed of those who are afraid of the epithet "old fogy," and the other of those who are not. . . .

Unfortunately, things are not so simple as all this reasoning, and the Wassermann reaction has come to stay until supplanted by a better one; and though an experienced syphilologist may not need it so often as various laboratory owners think he does, he needs it very badly when he does. . . .

From an Original Article on "Chronic Intestinal Amebiasis, Without Dysentery" by R. S. Cummings, M. D., Los Angeles.—My excuses for reporting the following cases are, first, the scarcity of literature concerning amebic in-

(Continued on Page 18)

Are You Sure?



In some cases you probably prescribe two to three teaspoons of cod liver oil daily as an antirachitic for infants six months of age or older. . . . But **are you sure** that the baby actually receives the cod liver oil? Do you not find that all too often the mother neglects this daily task, or the baby refuses to take the dosage?

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TWENTY-FIVE YEARS AGO

(Continued from Page 16)

fections without dysentery, and second, to add my testimony to the efficacy of ipecac to rid the colon of amebas. . . .

From an Original Article on "The Cutaneous Reaction of Syphilis—(Luetin Reaction)" by Julian Mast Wolfsohn, M. D., San Francisco.—Syphilis, because of its poly morphous lesions, is one of the most difficult of diseases to accurately diagnose. In its latter stages it not only simulates other diseases, but in certain cases no demonstrable lesions or physical signs can be found to aid us in making a diagnosis. In primary and secondary syphilis the Treponema pallida can in most cases be demonstrated microscopically; so that our chief interest in this paper centers itself about the later stages of the disease, where laboratory methods must needs be often employed to ascertain the presence or absence of syphilis.

Since the advent of the Wassermann reaction, a great many cases of syphilis have been correctly diagnosed which otherwise would have been relegated to the collection of medical enigmas. How many cases of gummata of the brain or meninges have been saved from needless operation by this laboratory reaction! . . .

From an Original Article on "Enteroclysis in the Treatment of Weak Hearts" by William Watt Kerr, M. D., San Francisco.—Allow me to preface the following remarks by the statement that I am not going to suggest the use of colon lavage in all cases of weak heart action, but only in those instances where there is good reason to believe that the feebleness of the myocardium may be induced or increased by absorption of toxins from the alimentary canal, and even then the treatment is not capable of universal application. . . .



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BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 248)

arrested in his office at 702 Market Street by Special Agent J. W. Williams, who declared Van Buren was practicing medicine without a license. . . ." (San Francisco *Examiner*, July 21, 1938.)

"A former physician, extradited here from Boston, Mass., on a spurious check charge, was being questioned in Los Angeles today in connection with crimes throughout the country spanning three decades. According to police, the suspect, Jerome Abramowitz, alias Thomas J. Luby, whose license to practice medicine has been canceled, has served two jail terms in the East for forgery and passport violations. They charged he is sought for questioning in connection with the passing of more than $100,000 in fictitious checks." (Press dispatch, dated Los Angeles, July 21, and printed in the San Francisco *Call-Bulletin*, July 21, 1938.)

"Dr. Nathan Housman occupied the witness stand in Superior Judge J. J. Trabucco's court yesterday and explained why John C. Farrell, his codefendant, paid him $5,000 for professional services to the late Lewis M. Baker. Doctor Housman, Egan case figure, and Farrell, former police officer acquitted with three fellow officers in an asserted drug-store robbery, are defendants in a suit brought by Mrs. Mignon Baker Brown, widow of Baker. . . . Baker, fatally injured in an automobile accident in 1936, had approximately $10,000 at the time of the accident. Return of this sum, which Baker gave to Farrell, is sought by the widow. 'Baker told Farrell to give me $5,000,' Housman testified yesterday. 'I left Baker's side during his illness only to get coffee, or change my clothes. He had the severest skull fracture I ever saw. If I'd known that I would work four days and nights without rest, I'd have demanded $10,000.' Later Dr. O. W. Jones, who performed

(Continued on Next Page)



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(Continued from Preceding Page)

a delicate two-hour brain operation on Baker, testified: 'My fee was $500. That included the payment for the consultant work done by Dr. Howard Naffziger. Doctor Housman did no more than I did. This $500, Housman and Farrell claim, came out of the $5,000 given Housman by Farrell. A third witness was Nurse Mary A. Wilson, who said 'someone held Baker up in bed so he could sign a death-bed release,' which surrendered his funds to Farrell. . . ." (San Francisco *Examiner*, July 27, 1938.) (Previous entries, December, 1932; July, 1933; and January, 1937.)

"Charged with suspicion of grand theft in connection with the asserted inducing of a local physician to pay for his hospitalization, Clifford Robertson, former film-casting director, had been booked today at the county jail. Dr. Charles E. Futch, the complainant, charged Robertson told him he still had considerable back salary due from a major studio, according to Investigator Ned Keeler." (Los Angeles *Herald-Express*, August 5, 1938.)

"Fresno County officials today joined with District Attorney Roger Walch and Coroner Earl Northrop of Hanford in investigating the death of Mrs. Maxine Burke, 27, whose death in the Kings County Hospital, July 22, was attributed to complications following an illegal operation. . . ." (Fresno *Bee and Republican*, July 29, 1938.)

"Habeas corpus proceedings by which Mrs. Erol Ray Ward, forty-eight, sought to escape prosecution on a charge of performing an illegal operation, were balked yesterday afternoon when Superior Judge Edward J. Tyrrell denied her petition for a writ. Mrs. Ward, nurse for Dr. J. F. Shafer, 74, likewise under arrest, attacked the complaint through her attorneys. . . ." (Oakland *Tribune*, July 29, 1938.)

"Dr. J. E. Shafer, 74, for thirty-two years a practicing physician, was yesterday charged by the police with having performed a criminal operation on Mrs. Lee Etta Bruce, twenty, 1037 Elbert Street, Oakland, last Friday. Doctor Shafer denied the charge. . . . " (San Francisco *Chronicle*, July 27, 1938.)

"James L. Bates, Gridley chiropractor, was arrested this afternoon on a complaint charging him with performing a criminal operation on Mrs. Rachel Kersey, twenty-two, wife of a Gridley laborer. . . . Bates' arrest was ordered by Joe King, District Attorney, after Dr. L. A. Jacoby, county physician, had reported Mrs. Kersey to be in critical condition at the county infirmary. . . . Examination indicated she was suffering from blood poisoning following an operation to prevent her from becoming a mother, King said. Mrs. Kersey admitted she had been treated by Doctor Bates at his office in Gridley, according to the District Attorney. . . . Bates, whose age was given as about fifty-two, has practiced in Gridley about fifteen years. . . . Bail was fixed by Harry S. Hills, Justice of the Peace, at $1,250 cash or $2,500." (Oroville *News*, July 29, 1938.)

"Earl Louis Alexander, thirty-eight, Oakland hosiery salesman, today was arrested by G. J. Mohler, investigator

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for District Attorney Dan F. Conway, on suspicion of practicing medicine without a license. Mohler said an asserted examination performed by Alexander on Helen Boyle, fifteen, of 560 Bond Street, on the representation that he was a doctor, led to Alexander's arrest. Mohler said Alexander admitted posing as a doctor and calling at the Arthur home, but denied certain phases of the alleged examination of the girl. Miss Boyle and her mother, Mrs. C. E. Arthur, told Mohler a man giving his name as Doctor Hemingway called to make a physical examination of the girl, following an advertisement Miss Boyle published in which she sought employment in the care of children. A man, who gave his name as Doctor Hemingway, later called. Mrs. Arthur said she became suspicious after the so-called Doctor Hemingway informed her a further examination would be required. Arthur obtained the license number of an automobile which was traced to Alexander. Mohler said the State Board of Medical Examiners and the Alameda County District Attorney's office assisted in the investigation. A charge of practicing medicine without license was filed against Alexander in Justice George DeWolf's court today by Joseph W. Williams, Special Agent for the State Board of Medical Examiners. . . ." (Fresno *Bee and Republican*, August 10, 1938.)

Nutley Solves "Common Drinking Glass" Evil.—Attention of the nation's health authorities centered on this cleaner-than-average city recently, as health officers of New Jersey heard a story that could be duplicated anywhere in America.

Presenting a report, for which his fellow health officers had waited eagerly since January, Mr. Richard V. Fellers emphasized that pathogenic organisms were recovered in nearly every estalishment examined. Mr. Fellers emphasized that the condition was in no sense the result of unusual negligence on the part of those establishments which coöperated in the survey, but rather was, in the light of similar tests made elsewhere, typical of public eating places throughout the United States.

(Continued on Next Page)

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(Continued from Preceding Page)

"We were long ago justly concerned about the so-called 'common drinking cup,'" he said. "Yet today we must concede that conditions in some of our public eating and drinking establishments are equally if not more menacing. In my opinion, unsterilized drinking glasses are 'common drinking glasses,' and as such should likewise be banned."

The organisms recovered in all glasses examined, Mr. Fellers said, was Staphylococcus albus, one of the family of pus-forming organisms. Staphylococcus aureus and Staphylococcus citreus were found in many instances, he disclosed; while considerable numbers of Coli aerogenes, common intestinal organisms, were isolated in several samples. Other pathogenic bacteria recovered included Neisseria catarrhalis, Gaffkya tetragena, Streptococcus pyogenes and Streptococcus epidemicus, or septic sore throat "bug." Thousands of colonies were cultured from the rim of a single glass.

Temperatures of wash and rinse waters used in the places examined, he said, varied from 10 to 71 degrees centigrade; superheated steam, the only effective heat sterilizer, being impractical, particularly in summer. The survey consequently showed a marked relation between organisms recovered from swabs of glasses and those found in the wash and rinse waters.

Chemicals, the health officer pointed out, were often impractical, particularly in taverns and soda fountains, because the type of liquid contained in the glass precludes the use of chemicals or sufficient concentrations of soap. There remained, he said, only one practical way of obeying the statutes—now in force in forty-six states—requiring absolute sterilization. This method is by ultra-violet radiation, which long has been known to be bactericidal and can now be produced by a practical, economical unit.

The health officer learned that the new Westinghouse ultra-violet tube called the Sterilamp, did not generate heat, was in fact used in refrigerators; was inexpensive, requiring only about ten watts of energy; had a useful life of about four thousand hours, and was simple to operate.

At his request, the Westinghouse engineers installed a special glass-sterilizing machine for the tests. The same glasses that had previously shown an alarming bacterial count became from 92.8 per cent to 99.9 per cent sterile after a few seconds' exposure.

Mr. Fellers then demonstrated the simple apparatus, showing how its endless wire belt carried washed glasses under the 30-inch sterilamps shaped like neon tubes, and over three others, automatically stopping when a sufficient number of glasses reached the discharge end.

"The investigation," he concluded, "showed conclusively that a sterilizer using sterilamps as the sterilizing agent effectively reduces the bacterial contamination of drinking glasses, and that this form of sterilization is practical and adaptable to general use."

(Continued on Page 26)

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(Continued from Page 22)

Mr. Fellers, who was introduced by Mr. F. H. Bostock, Nutley's Commissioner of Public Affairs, and chairman of the symposium, was followed by Dr. Harvey C. Rentschler, Director of Research at the Westinghouse Lamp Laboratories, and Dr. Robert F. James, his associate, co-developers of the sterilamp. Doctor James told of other successful applications of the Rentschler-James process. Doctor Rentschler showed microphotographs of paramecia being killed by the sterilamp, which caused them to burst before the health officers' eyes.

Types of Pneumococci in Acute Pneumonia.—Gard and his associates point out that the type differentiation of the pneumococci has opened up fresh avenues of approach for the study of the epidemiology and therapy of the pneumococcic infections. The satisfactory experiences gained abroad with specific serum therapy have led to its being tried in Sweden. The aim of the researches reported in this paper has been to ascertain the importance of various types of pneumococci as a cause of pneumonia. The authors reach the conclusion that the sharp line of distinction between croupous lobar pneumonia and catarrhal bronchopneumonia cannot be maintained. Acute pneumonia presents varying pathologico-anatomic appearances ranging from the fibrinous, lobar form, passing gradually into catarrhal bronchopneumonia and showing intermediary and mixed forms with variations in regard to the abundance of fibrin and the lobar dispersion. The pathologico-anatomic diagnosis made on the basis of clinical and roentgenologic observations is, of course, of value in determining the prognosis, but its importance in that respect is enhanced if it is supplemented by a bacteriologic investigation, which moreover is absolutely essential as a preliminary to a specific therapy. The authors have not been able to confirm Gundel's theory that the pathologico-anatomic aspect of pneumonia is determined entirely by the serologic type of the pneumococci. Other

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factors play at least as important a part in this respect. If, then, it is hardly justifiable from that point of view to ascribe any special position to types 1 and 2, nevertheless it cannot be denied that type 1 predominates in the frequency statistics in spite of the fact that several of the other types have proved to be capable of causing pneumonia with as high a rate of mortality or one even higher. Gundel's assumption that dissimilarities in the mechanism of infection (exogenous-autogenous infection) is the decisive factor in this respect can hardly be accepted as a satisfactory solution of the problem. From the investigations the authors have carried out it appears that approximately half of the lobar forms of pneumonia are caused by pneumococcus type 1, so that the production of type 1 serum for therapeutic use must be regarded as one of the most important means of reducing mortality from pneumonia. The next step would be to make serum against types 2 and 7. The experience gained abroad as to the effect of serum against these three types of pneumococci has been extremely favorable.—*Acta Medica Scandinavica.*

First Welded Hospital Built Without Noise in Fifty-eight Work Days.—Freed from the machine-gun rattle of the rivet hammer, the thirteen-story Woman's Hospital of Pittsburgh has risen silently during fifty-eight noiseless working days in the midst of the University of Pittsburgh's Medical Center. In fact, the 1,000 tons of steel for Pittsburgh's first arc welded building were joined to the new Presbyterian Hospital; less than two hundred feet away from the Eye and Ear Hospital and the Children's Hospital. The staccato beat of riveters was the last thing the physicians would prescribe for the hundreds of patients in these hospitals.

To meet the stipulation of the Woman's Hospital board of directors that the structure be welded together, City Council granted a special construction permit pending passage of a new ordinance incorporating welding regulations in the building code.

Electric Power Eliminates Rivets.—Ordinarily fifteen tons of rivets would have been pounded into the steel frame-

(Continued on Next Page)

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(Continued from Preceding Page)

work, but the welders substituted $300 worth of electric power to merge 2,300 pounds of welding rods with the structural steel which was manufactured by the Bethlehem Steel Corporation. The Duquesne Light Company installed the power service for the Westinghouse transformer type arc welders, eliminating need for motor-driven or engine-driven direct current welding machines.

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(Continued on Page 30)

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FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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(Continued from Page 28)

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Cancer.—Do you know that the average person is thirty years behind the times in his attitude toward cancer? That tens of thousands of women who have had cancer are now well, free from the disease, and living happy, useful lives? That perhaps more than half the 150,000 men and women who died last year of cancer might have been saved?—American Society for the Control of Cancer.

Do you know that two Presidents of the United States had this dread disease—U. S. Grant and Grover Cleveland—and that Cleveland, operated upon promptly, completely recovered from cancer and served again as President, having added fifteen healthful years to his life span, and that, like most people, Grant waited too long? The average cancer victim, records show, hesitates five or five and one-half months after he, himself, suspects, before consulting a physician. Grant waited four months; within a year after operation he was dead. Today, not only by surgery, but by x-ray and radium therapy, available in the private practice of the doctor and in hospitals, cancer victims are being freed from dread.—*Cincinnati Times-Star.*

Do you know that the Woman's Field Army for the Control of Cancer was formed to spread information and a message of hope, and that this is a woman's army because women are attacked most savagely in two locations—the breast and the uterus—and that cancer can be cured in more than 70 per cent of cases if taken in time? That the program of the Army must be a long-time one, as its object is to teach every man, woman, and child in the country that general cancer can be reduced only by courageous alertness and prompt action by the *individual*, and that this



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can occur only when the danger signals of cancer are generally known and the delay between the appearance of these signs and a visit to a physician is reduced? That the Army will strive to interest men and women in all aspects of the disease, in the diagnosis and treatment, in the research and related problems that are being carried on, and also in the needs of underprivileged victims of the disease?

Whatever can be learned about the agents that initiate, direct, inhibit or destroy growth is of value in the attempt to control cancer by knowledge of its cause or causes. The field is as wide as the study of physical life itself, for cancer is a very real and assertive form of living tissue out of place in a body which is pledged to a rigidly organized and highly evolved limitation of function.

Recently, an Act of Congress established a National Cancer Institute. The Act directs the Surgeon-General of the Public Health Service to conduct, assist and foster researches, investigations, experiments and studies relating to the cause, prevention and methods of diagnosis and treatment of cancer. The Act provides for the purchase of radium and its loan to institutions studying and treating cancer. Fellowships are to be established for research purposes, and experts and consultants brought together for applying their combined knowledge and experience in combating different features of the disease. In our country there are organizations, groups, and even individual physicians engaged in cancer studies from new and original angles, but who lack funds to carry forward their researches to the extent desired. The Act provides for grants-in-aid to such qualified agencies so they may work out their ideas in the hope that someone, somewhere, may evolve a new fact or a new discovery which may throw light upon this great problem.

"A lasting service to preventive medicine can be performed by each physician who produces authoritative and logical certificates of cause of death, and time should be found in the curriculum of medical schools to impress the essential points upon each student."—*American Journal of Public Health.*

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BUSINESS MANAGER GEORGE H. KRESS

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Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

REFORMS IN MEDICAL CARE: NATIONAL HEALTH CONFERENCE AFTERMATHS

National Health Conference, Washington, D. C.—The proceedings of the "National Health Conference," which met in Washington on July 18-20 and concerning which comment was made on page 105 of last month's issue of CALIFORNIA AND WESTERN MEDICINE, continue to receive much attention in the press. A public health program for which an expenditure of eight hundred million dollars was outlined is naturally a matter of importance.

* * *

"United States News" Prints Symposium: "Is Present Medical System Adequate?"*—An interesting series of opinions from physicians, social-service workers, labor organizations and other executives have appeared in the "Question of the Week" department of the *United States News,* for August 1, 8 and 15, the result of an effort by that journal to obtain authoritative views on the problems presented, when the following questions were put to a large number of delegates to the National Health Conference:

1. Is there need for reform in the system of medical care now available in this country?
2. If reform is needed, should it take the form of compulsory health insurance as a part of a Social Security system?
3. Or should any reform be based purely upon voluntary group insurance methods under control of the medical profession itself?
4. If voluntary group insurance is considered inadequate, would a tax-supported system of insurance providing care for major illness and hospitalization be favored?

* * *

The Nature of the Contributors' Answers.—In regard to Question 1, the answers were almost unanimous that deficiencies in the asking for, and giving of medical care did exist and, therefore, should receive coördinated attention.

The other questions, concerning compulsory health and voluntary group insurance systems, were answered in varying manner; social service workers, and executives of labor and similar organizations being largely in favor of compulsory insurance.

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

* For other items on this and related topics, see pages 234 and 243.

Scanning the opinions expressed, the impression one receives is that many of the contributors lean to compulsory health insurance, not so much because of their intensive study or knowledge of how such systems have worked in actual practice in European lands or the adaptability of the methods to America, but because seemingly they believe that the allocation of federal, state and local funds would be able to purchase "adequate medical care," just as easily and efficiently as groceries, dry goods or other commodities may be bought, in forgetfulness or disregard that "medical service" is a something quite different from any commodity, and from even other types of service that may be bargained for in the open market.

* * *

"Quality" of Medical Service Seemingly Forgotten by the Majority of Contributors.—Very few of the many contributors called attention to the all-important element of "quality" in medical service; most writers evidently taking it for granted that when such a large "quantity" of medical service was once bought with massive state and other funds—which would be accumulated under a compulsory health insurance system—there would be no deterioration in the "quality" of the medical service rendered. To our mind it is just here where a basic weakness and deficiency in compulsory health insurance systems are to be found, particularly as they would come into evidence, if attempt were made to apply them to Americans in the lower-earning brackets. It must be remembered concerning Americans possessing only lower incomes, that the standards of America lead all citizens not only to feel they should have the right to choose their physicians, but to expect a proper kind of professional service.

* * *

Element of "Successful Administration" Likewise Almost Overlooked.—Since compulsory health insurance in the United States, operating under governmental patronage and supervision, would necessarily mean a close identification and integration with the political system under which we live, the practicality of such a system must be carefully considered. In this connection, a brief paragraph from a letter of Dr. Ellen C. Potter, Director of Medicine in the New Jersey State Department of Institutions and Agencies, is worthy of special emphasis:

> In addition, may I quote Sir Josiah Stamp, who has said, "It is a mistake to legislate beyond our capacity to successfully administer." The lack of qualified personnel to throw into a nation-wide program in this field makes a cautious approach to this great undertaking desirable.

This basic thought of Sir Josiah Stamp, that "It is a mistake to legislate beyond our capacity to successfully administer," cannot be too strongly stressed in discussing medical-care problems, especially when compulsory health insurance methods are under consideration.

* * *

European Countries and Peoples Are Not the United States and Americans.—In line with Sir Josiah Stamp's opinion on legislative matters is that which was expressed by Sir Henry Brackenbury who, as a representative of the British Medical Association, had so much to do in planning the scheme under which England's compulsory system operates. On page 145 of California and Western Medicine, for September, 1937, we commented on Sir Henry's remarks at a dinner given in his honor in Los Angeles, at which he told those present that, under a political system such as exists in the United States, in which public servants on the civil list were in minor positions to political administrators, he doubted very much whether compulsory health insurance could be successfully carried out. Two paragraphs of those comments on reasons why the English system would not be workable in the United States appear below:

> The existence in Britain of the permanent civil service personnel, which has continuous and real authority to carry out the acts and laws of Parliament, no matter what political group may name the nominal heads of the governmental departments is a real aid in carrying through to successful operation a compulsory health insurance system.
>
> Without such expert, impartial and nonpolitical supervision, he was of the opinion that a health insurance system such as exists in England, Scotland, and Wales would in the United States, from the beginning, be enormously handicapped in its organization, and prove practically impossible of successful development. The distinguished speaker emphasized also, as his personal opinion, that it was doubtful, therefore, whether a successful health insurance system could be created here [United States] under conditions wherein political forces would be in major authority.

* * *

Give and Take Elements in Medical Care.—It is true that the health and well-being of many persons could be benefited if they would place themselves under proper medical care, and that the money loss entailed through absence from work because of illness would thus in part be overcome. It must be remembered, however, that, even though properly qualified physicians were placed within the reach of many such persons, it would not avail greatly if the citizens for whom that service was intended chose not to seek the medical advice in proper time; or if they sought it, and their illnesses were in good part dependent upon faulty modes of living or habits, they preferred the faulty habits and deterrent causative factors to the proferred medical service.

* * *

Knowledge and Experience of the Medical Profession Not to Be Underestimated or Displaced.—May it not also be said that, of all citizens, the medical profession, more than any other group, consists of men and women in whom the milk of human kindness leads to constant and generous service to their lay fellows, and that if medical care conditions were as bad as painted by some of the emotionalists, superficial thinkers and propagandists, under such conditions physicians would be among the very first to make insistent demand for change in methods? Let it be kept in mind that when medical care problems are soberly analyzed and all the contributory factors of illness given proper consideration, it will still be found that "adequate medical care for all citizens" will mean more than merely creating a large fund of public and other money, to be expended under

nonmedical, political supervision that, if one may judge by past performances under such control, would in all probability lead to much duplication and unnecessary and unwise hospital construction and administration, as well as bringing into being a vast mass of bureaucratic paper procedures intended to supervise and control the work of physicians. In such a plan, members of the medical profession, in a short time, would be little more than mechanized units in a system leading them, not to stimulation for highest grade of scientific achievement, but rather to maintenance of personal economic safeguards in a medical service and panel set-up of dull mediocrity.

* * *

Evolution Preferable to Revolution in Public Welfare and Health Projects.—That we are living in a rapidly changing world no one will deny, but that every proposed change is for the good, and increasingly so in proportion to its revolutionary nature, has not yet been proved nor can nor will it ever be. Whatever inadequacies in medical care exist, should of course be remedied insofar as is humanly possible to bring betterments into operation; and that applies to every portion of the United States. With such a program, members of the medical profession are everywhere in full harmony. Here in California, the medical profession is striving earnestly to solve public health, and medical and hospital care problems, and that by evolutionary, rather than revolutionary methods. The obligation of physicians is to stand firm for sane measures of change. Radical experiments in medical care that would leave both the public and the medical profession of California in a worse position than any that now exists or that has existed in this State, should receive no encouragement from physicians.

* * *

Medical Profession of California Is Trying Out Plans in Many Communities.—It is gratifying to know that in the counties which make up the State of California, physicians in each community are studying their public health and associated needs, and that the progress thus far made gives hopeful indication of satisfactory solutions and further advancement in the days ahead. The members of the California Medical Association and its component county societies are alert to their responsibilities in these important public welfare and health problems, and by trial-and-error methods are testing out various plans and procedures. They will not easily be tempted, therefore, to accept theoristic planning as a substitute for broad, practical experience and common sense.

NEXT YEAR'S ANNUAL SESSION

Scientific Program Placements.—An annual session is little more than over and a part of history, when plans must be laid for a convention in the succeeding year. Such early preparation is of importance, particularly as regards the scientific programs for both the general meetings and those of the twelve sections of the Association constituting the Scientific Assembly.

Every member of the California Medical Association who has been studying some special subject, and therefore has in mind the presentation of a paper on a topic of scientific or pertinent interest, should write at once to the secretary of the section before which he would prefer to present what he has to offer, in order that due consideration of his work may be made by the Committee on Scientific Work, when that body holds its conference next October. The roster of Section Officers is printed in each issue of California and Western Medicine on advertising page 6 of the front section, the names of members of the Committee on Scientific Work appearing on page 2. A member who submits the title of a proposed paper should also provide a brief outline of the article, as he has it tentatively in mind. Correspondence, therefore, with these officers and committeemen, is invited. It is also important to remember that applications submitted at the last moment have a lesser chance for approval.

* * *

Reservations at Hotel Del Monte.—The Hotel Del Monte has long been a favorite gathering place for members of the California Medical Association, the only drawback to that splendid hotel and its inviting setting of grounds and scenery being a lack of accommodations to care for all who look forward to being present at such an annual session of the State Association. Fortunately, in the nearby and almost equally well-known resorts are other hotels, each with its own allurement, and within easy reach by automobile travel of the Hotel Del Monte itself. Final arrangements for the next convention are now being made with the hotel management, concerning which detailed information will be given in the October issue of the Official Journal. In the meantime, it is suggested that members, who wish to be certain of satisfactory accommodations, should send their requests for reservations to the Hotel Del Monte, Del Monte, California, where in sequence they will be placed on file for future and proper consideration.*

FINAL CALIFORNIA ELECTIONS ON NOVEMBER 8

The Final State Election Is Near.—Before the current issue of California and Western Medicine is placed on the desks of its readers, the California state primary elections will be a matter of the past, and members of the California Medical Association, in common with other citizens, will know who are the candidates of the three major parties, as their names will appear on the final ballots for election in November.

* * *

Civic Obligations of Physicians.—In last month's issue of the Official Journal, and on page 154, under the caption, "Our Obligations Prior to the California Primary Elections," twelve items were mentioned which citizens alert to their civic responsibilities may be expected to recognize as obligations to keep in mind. They are of moment

* For address of Hotel Del Monte and other information, see page 224.

especially to physicians, because recently so much publicity has been given the subject of medical care, as evidenced in the press and conversation on the street. No other occasion in recent years has demanded, in the interests of both public health and the medical profession, keener watchfulness by physicians concerning the calibre and background of legislative servants. To emphasize this point, various articles and items are to be found in this issue, as for instance, those on pages 235 and 243.

Every member of the California Medical Association and its component county units knows that in matters of civic responsibility, officers of the State Association only can give general and procedure information. The real burden of service must be borne by the Association members themselves, exemplified through personal interest and investigation, and by contacts and exchange of views with friends and patients.

If, then, you failed to note the comments which appeared on page 155 of the August issue, it is recommended that you turn back the pages to them. They may have a suggestive value for action that would bring important information to the officers of the California Medical Association. As there stated, "When you help in this, you help yourself, your colleagues, the medical profession at large, and the still larger public."

PROPOSED "HUMANE DOG-POUND" LAW

Previous Articles.—Several articles* in recent issues of this magazine have directed attention to the proposed "Humane Dog-Pound Law," an initiative measure now sure to be found on the state election ballot in November. As previously here enunciated, the name of the proposed law is, in one sense, but a mask to cover up its antivivisection features; for that is practically what the proposition aims to promote.

It is useless to discuss, with members of the antivivisection cult, any feature of scientific animal experimentation designed to acquire more and greater knowledge concerning diseases common to human beings, dogs and other animals. An inspection of the printed matter widely distributed by the tireless antivivisectionist reveals immediately the one-sided outlook and bias of the advocates, no matter how well-intentioned individual members of that group may be.

* * *

Article by Dr. P. J. Hanzlik.—In this issue, on page 182, appears an article by Professor P. J. Hanzlik of Stanford University, on the great service rendered to the human race through studies on dogs, in connection with gas-poisoning researches alone. Reading which, we cannot suppress the thought, "How many of the proponents of the California 'Humane Dog-Pound Law' would be sufficiently consistent, in case California cities were menaced by gas poisoning from a foreign enemy, to refuse to avail themselves of the protective measures which scientific experimentation on dogs has placed at their disposal?"

May it not be fair, then, to assume that the antivivisection propagandists would be among the first to run for their gas masks?

In this issue, on page 242, appear other contributions that give additional information concerning the "California Society for the Promotion of Medical Research," an organization that is bravely and efficiently carrying on the major battle against this absurd "Humane Dog-Pound" initiative. It is a society whose membership roster might well contain the name of every licensed physician in California; so, if you are in doubt, write for further information to the society central office at 369 Pine Street, San Francisco.

The issues raised by this antagonistic move of the antivivisectionists are grave; the need of united coöperation is apparent; and a vigorous support is most important. "Lend a hand!"

* References in CALIFORNIA AND WESTERN MEDICINE to "Humane Pound Law" include:

A "Humane Pound Law" Initiative to Be on the State Election Ballot in November, 1938 (editorial), Volume 48, No. 1, March, 1938, page 158.

As a Pharmacist Views the Proposed California Humane Pound Law—James J. Boyle, Volume 48, No. 4, April, 1938, page 257.

Proposed California Humane Pound Law: How It Would Affect Medicine and Pharmacology—Clinton H. Thlenes, Volume 48, No. 4, April, 1938, page 258.

California "Humane Pound Law" (editorial), Volume 49, No. 1, July, 1938, page 2.

"Humane Dog Pound" Initiative Will Be on the General Election Ballot on November 8 (editorial), Volume 49, No. 2, August, 1938, page 109.

California Society for the Promotion of Medical Research, Volume 49, No. 2, August, 1938, page 172.

AMERICAN MEDICAL ASSOCIATION CALLS SPECIAL SESSION OF HOUSE OF DELEGATES!

At the time the forms of this September issue are being locked for the press, we are in receipt of a call for a special session of the American Medical Association House of Delegates. For additional information, see items in the California Medical Association department, on page 221.*

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 221.

* Under date of September 1, the secretaries and editors of constituent state associations were invited by the American Medical Association Board of Trustees to be present at the special session of the House of Delegates which will be held in the Red Lacquer Room of the Palmer House on Friday, September 16. (This meeting will take the place of the 1938 conference of state secretaries and editors which is usually held in November.)

The California Medical Association delegates and alternates to the American Medical Association House of Delegats are:

DELEGATES	ALTERNATES
C. A. Dukes, Oakland	Edward N. Ewer, Oakland
E. M. Pallette, Los Angeles	W. H. Kiger, Los Angeles
Robert A. Peers, Colfax	F. F. Gundrum, Sacramento
W. R. Molony, Los Angeles	J. C. Ruddock, Los Angeles
Elbridge Best, San Francisco	R. S. Stone, San Francisco
Lyell C. Kinney, San Diego	Bon O. Adams, Riverside
J. P. Nuttall, Los Angeles	F. M. Pottenger, Los Angeles

The medical profession is traditionally conservative and it is the part of wisdom to proceed cautiously. Yet, while other human activities go forward and new methods and techniques are born the practice of medicine must necessarily change also. To a living organism or a living organization change is the one universal law. Still it may be fatal if too sudden or too violent.

EDITORIAL COMMENT†

LABILE BACTERIAL ANTIGENS

On storage at 4 degrees centigrade streptococcus vaccines are oxidized to immunologically inert substances. The same vaccines are denatured by heating to 56 degrees centigrade for thirty minutes, or by exposure to even the mildest chemical antiseptics. This discouraging result, currently reported by Dr. Stuart Mudd and his coworkers,[1] of the Department of Bacteriology, University of Pennsylvania, offers a plausible explanation for many streptococcus vaccine failures of the past.

Highly labile components in bacterial antigens were first described about two years ago by Chembers and Flosdorf,[2] who studied the immunochemical properties of virulent streptococci disintegrated in a sonic vibrator. The resulting "sonic supernate" would completely bind, inactivate or remove serum antibodies. This property was completely lost, however, if the supernate was heated to 75 degrees centigrade for fifteen minutes, or stored in the refrigerator for three to ten days.

These labile antigens have been currently restudied by Doctor Mudd and his coworkers through their new lyophile ball-mill method. The streptococcus suspensions were frozen about the inner periphery of the ball-mill disk, then dried by the lyophile (vacuum) process. The resultant lyophile vaccine was then ground by the rotation of the disk in an external freezing mixture (dry ice in methyl cellosolve). The resulting bacterial debris was taken up in distilled water and sterilized by passing through a Berkefeld filter. The Philadelphia investigators found that the labile component in this filtrate can be precipitated by mild acidulation with HCl (p^H 4.5). The yield was from 10 to 20 per cent of the dry weight of the microörganisms, depending upon the strain of streptococci used. Antibodies against the freshly prepared labile precipitate specifically promote agglutination and phagocytosis, and protect mice against lethal doses of living streptococci.

Of special theoretical interest is their finding that the freshly prepared labile precipitate can be split into two haptens by acid-hydrolysis. One of these is type-specific, the other group-specific. Since only the type-specific fraction is serologically demonstrable in intact streptococci, it would appear that the labile hapten-complex is so oriented on the surface of the bacterial cell as to expose only the type-specific hapten. If this is true, a simple change in the orientation of this surface colloid might account for the numerous "dissociations" or "transformations" of streptococci described in recent literature.

Of even greater theoretical interest is Doctor Mudd's finding that in the presence of certain reducing agents the labile hapten-complex is changed to a hemolysin, lucocidin or lethal toxin. Thus far, it has been assumed by most bacteriologists that hemolysin, leucocidin and toxin are "independent variables" in streptococci.

The greatest contribution of Doctor Mudd and his associates to clinical theory, however, is their implication that a restudy of currently unsuccessful bacterial vaccines by their method of lyophile disintegration might yield other labile antigens of practical value. Successful labile vaccines for tuberculosis or malignant disease are not beyond research hope.

Box 51. W. H. MANWARING,
Stanford University.

TREATMENT OF THE COMMON VASCULAR HEMIPLEGIAS

The common vascular hemiplegias are of three pathological types: thrombosis, hemorrhage, and embolism. They all give, superficially, the same clinical picture, and are often described in textbooks together as apoplexy; yet they differ so strikingly in their fundamental natures, and in the treatment required, that they should be sharply distinguished.

Their relative frequency is not known and is not likely to be determined. This is because one cannot at all depend upon the clinical diagnoses for reliable classification, and when one is dependent upon autopsy findings one must accept largely institutional material. This means that all of the most severe cases are omitted because the patients die before hospitalization can be effected. Hiller, in a monographic article in the new "Handbuch der Neurologie" by Bumke-Foerster, in reviewing the statistics of various authors quoting autopsy material, finds that hemorrhage varies in frequency of occurrence from 20 to 71 per cent. Hiller's own analysis of fifty-nine cases showed fifteen instances of embolism, sixteen of thrombotic softening, and twenty-eight of hemorrhage. In any receiving hospital, hemorrhage far outweighs other causes in a hospital for chronic diseases. The only reliable figures concerning actual occurrence would be from private practice covering a large period, with autopsy in every case.

If one can be certain that a thrombosis has occurred in a given case of hemiplegia, the treatment is quite definitely indicated. The patient should be placed in bed with the head low (foot of the bed elevated), in order to increase the cerebral circulation. Vasodilators may be given (sodium nitrite or acetyl choline), though this is of less importance than the omission of the ice-cap so commonly applied. Intravenous isotonic fluids are certainly indicated. Ordinarily 500 cubic centimeters of normal saline, twice daily, may be used if it is well tolerated. Potassium iodid is commonly given, and does no harm though it probably does no immediate good.

With the above treatment the response of patients with cerebral thrombosis is usually good and sometimes striking. It is readily seen, however, that if the case is incorrectly diagnosed as throm-

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

1 Chambers, L. A., and Flosdorf, E. W.: Soc. Exper. Biol. and Med., 34:631, 1936.

2 Mudd, S., Czarnetzky, E. J., Lackman, D., and Pettit, Horace: J. Immunol., 34:117, 155 (Feb.), 1938.

bosis instead of hemorrhage, the death of the patient will be hastened. Hemorrhage should be treated in the diametrically opposite manner. The head of the bed should be raised, an ice-cap should be applied to cause reflex vasoconstriction, and if the hypertension is excessive, the old-fashioned venesection may be of value. If the hemiplegia is due to embolism, the treatment is governed by the cause of the condition. When the immediate cause of the hemiplegia is in doubt, it is best not to treat the patient specifically.

The cases in which there is doubt are not at all rare. In hospital practice one receives patients who have been picked up by the police on the street or in hotel rooms, for which reason the most important single item in the differential diagnosis, the history, is lacking. Embolism is first to be excluded or detected if possible. In an unconscious patient this is extremely difficult. In a young patient it is quite likely to be the underlying cause. If history is available, one learns that the patient fell as though shot.

Hemorrhage is next most rapid in onset, but it usually occupies half an hour to an hour, and if slow may take twelve hours. The blood pressure is usually high and the artery affected is one of the intracerebral ones, not one on the surface. Loss of consciousness is the rule, and there is apt to be xanthochromia if not actual blood in the spinal fluid. Available history usually states that the patient was engaged in active exercise at the time.

Thrombosis usually occurs during the night or during rest. The blood pressure may be high or low, but arteriosclerosis is present in either case. It is gradual in onset (which may be learned if the accident occurs in the day time). Recurrent attacks, finally becoming complete and permanent, indicate thrombosis rather than either of the other types. If consciousness is not lost, one should strongly suspect thrombosis.

With a differential diagnosis in mind, much can be done for the patient with cerebral thrombosis, even if the patient is not seen for several days.

727 West Seventh Street.

J. M. Nielsen,
Los Angeles.

Insulin in Treatment of Acute Mania.—Grosh states that recently at the Ypsilanti State Hospital three cases have been observed of apparent diabetes mellitus occurring during the course of the manic phase of manic-depressive psychoses. Two of the cases referred to were studied not only during the periods of acute elation but also during lucid intervals of more normal activity. The study of the dextrose tolerance curves taken during these two periods demonstrates that, while in neither period are they consistently grossly abnormal, still there is a distinct prolongation of the blood sugar elevation during the elated period when compared to the curves obtained under normal conditions, which are suggestive of increased tolerance. This comparison suggested that there was some relative loss of tolerance during the attack for which insulin might be used in a remedial rôle. In both of these cases it might possibly have been mere coincidence that the psychomotor activity was sharply cut down to the normal level after a few days of insulin therapy. None the less this type of therapy is suggested as a reasonable procedure in the acute relations in which the dextrose tolerance test reveals a relatively high type of curve when compared with the curve in normal activity.

ORIGINAL ARTICLES

USE OF DOGS IN DEVELOPING TREATMENT OF WAR GAS POISONING*

By P. J. Hanzlik, M.D.
San Francisco

NATIONS of the world are preparing for war as never before. New methods and chemicals are being feverishly developed so no one may be caught napping, as were the Allies in the World War. The Allies will never forget the surprise attack by the Germans at Ypres in April, 1915, when great quantities of cylinder gas were released with ghastly effects. As a result, hundreds of American and foreign scientists engaged in chemical and animal experimentation and eventually developed methods of protection and treatment of inestimable value to the troops at the front.

POISON GAS THREATS: NEED OF SAFEGUARDS

A few of these scientists remained at their government posts to continue the work of preparedness in peace times. This was indeed fortunate, for undeclared wars and propaganda for war poisons have continued since then almost uninterruptedly. Already now, the threat to use poison gas in warfare seems a stark reality which is almost universal. A subsidiary aspect, though not less important toxicologically, is a certain usage of poison gases in civilian life, as police measures and in industries. Hence, the desirability of understanding their physiological actions seems obvious.

Equally, or more, important from the public standpoint is the development of safeguards or protective measures against exposure to war gases and antidotes and methods of treatment in case of poisoning.

Yet, today, there are people in California who, no doubt, unintentionally would create a situation that would stop all this essential work for state and country. While they do not realize it, they are, nevertheless engaged in activities which would prevent developing protective and therapeutic measures for defenseless people and animals. For it requires no great stretch of the imagination to visualize what would happen to the unprotected cities of the Pacific Slope and their populations in case of a sudden gas attack.

PROPOSED "STATE HUMANE POUND ACT" FOR CALIFORNIA

However, the initiative measure entitled the "State Humane Pound Act," which aims at elimination of all animal experimentation from scientific research in medicine and related fields, would aid the attacker's purpose. This measure is ostensibly intended to take care of unclaimed dogs and cats, but everyone who understands the language of the measure knows that it actually will stop the use of all animals for the investigation and relief of human suffering, whether the result of disease or gas warfare.

* From the Department of Pharmacology, Stanford University School of Medicine, San Francisco.

The public cannot remain indifferent to situations which might give comfort to potential enemies and render defenseless unfortunate soldiers and people; yes, even the poor wretched beasts for whom the "antis" profess so much agonizing sympathy! Where is the antivivisectionist who has done anything for the dog in gas warfare, let alone soldiers and people ? However, the dog has repeatedly rendered such patriotic services. Let us consider the dog's record in chemical warfare, as the "antis" have nothing comparable.

THE DOG'S RECORD OF UNSELFISH SERVICE

The dog's splendid record of unselfish service is to be found in the late Lieutenant Colonel Frank P. Underhill's book, entitled "The Lethal War Gases, Physiology and Experimental Treatment," published in 1920 with the permission of the United States Director of Chemical Warfare Service. Humanity owes a debt of gratitude to Professor Underhill in compiling this remarkable record of work done by him and his associates on dogs and other animals. None can complain now of lack of preparedness in case war should come. For in this book there are all the principles, necessary procedures, and numerous results described in great detail, which only require application. In the preface to his book, Colonel Underhill remarks as follows on the results obtained along lines of treatment:

> Before data in this direction could be obtained the Armistice was signed. A sufficient number of gassed men were observed, however, to demonstrate the similarity of their condition to that of the experimental cases. The successful treatment of the latter by the therapeutic measures evolved made probably an equally successful outcome of the proposed trial in the field with human cases of gas poisoning.

The truth is that these very treatments worked out on animals during the war have been of inestimable value in civilian cases of poisoning in peace times. Thus, the results of these animal experiments are more than doubly valuable, for no one would be so selfish and unreasoning as to deny such benefits to man and beast, especially the dog.

HOW DOGS WERE USED IN THE EXPERIMENTS WITH WAR GASES

There is no doubt that dogs were used extensively, if not mostly, in the experiments with war gases. Besides the record in Underhill's book, there is ample testimony of this usage in the reports compiled in "The Medical Department of the United States Army, Vol. XIV—Medical Aspects of Gas Warfare," prepared by Major General M. W. Ireland, Surgeon-General, and published by the Government Printing Office in 1926. The other animals used to a considerable extent were goats, and sometimes the experimentalists themselves served as experimental subjects.

These compilations indicate that in the beginning of the war the lung irritants used with military success by the Germans were chlorin and phosgene (palite). The unprepared Allies scarcely knew where to turn for relief or remedy.

CHLORIN-GASSED DOGS

Speaking of his experimental results in treating chlorin-gassed dogs, the German gas used at Ypres in 1915, Underhill states, in General Ireland's compilation:

> The method of treatment is especially recommended because it is simple and harmless and because it is based upon clinical usage and experimental evidence. . . . Venesection, of course, has long been employed in conditions involving pulmonary edema and congestion. Recently it has been applied, with conflicting results, in the treatment of these conditions induced in man by poisonous gases in warfare. Inasmuch as the incidental observations with blood letting indicated a favorable influence upon gassed dogs, it was deemed desirable to determine, under exact conditions, the effect of venesection upon the mortality of dogs receiving a lethal concentration of chlorin gas.

Such was the controversial state of the treatment problem in war gas poisoning before controlled experiments were begun on dogs. That dogs might be more specifically suited than other animals is indicated by the following statement:

> These figures indicate clearly the therapeutic value of venesection after chlorin poisoning in dogs under the conditions of the experiment. The result is at variance with that reported by British investigators upon goats (p. 681).

GAS POISONING FROM PHOSGENE

Although chlorin was soon abandoned for the more efficient phosgene (palite), Underhill states:

> It was not until a study of phosgene poisoning was made that an adequate conception was obtained of the fundamental principles involved in gas poisoning. The treatment for chlorin poisoning was evolved by more or less empirical methods, whereas in the case of phosgene the changes taking place in the blood were well recognized and the stages of phosgene poisoning quite clearly defined previous to any extensive attempts at therapeutic measure. This understanding of the problem led to a much more rational plan of attack with regard to treatment.

This treatment was worked out on dogs instead of goats or other animals for reasons made clear by Underhill on page 181, where he states:

> From the clinical pictures presented by these gassed individuals it became quite evident that the conditions existing in man and the dog are remarkably similar if not identical!

CHLORPICRIN GAS POISONING

In discussing his experiments on treatment of pulmonary irritation and edema from chlorpicrin (superpalite) in dogs, Underhill states (p. 159):

> As may be seen in Table 81 the mortality of the treated animals is decreased from 90 to 57 per cent by a single bleeding in a severely gassed goat. This large reduction in mortality in the ninety-five animals used in these experiments demonstrates conclusively that bleeding is an efficacious therapeutic procedure when applied early to goats gassed with high concentrations of picrin. These data have been subjected to statistical analysis and found to be conclusive.

In comparing the results of bleeding in goats with those in dogs, Underhill points out a difference (p. 161):

> As shown in Table 82, the results obtained from this type of treatment at both concentrations (chlorpicrin) are practically identical with the regular toxicity figures, and it appears clear, considering the large number of animals used, that this type of treatment is of no benefit.

The difference between goats and dogs is further emphasized on page 163:

> In the animals (dogs) which are seriously affected, this basic treatment of bleeding or supplying of fluid by mouth or intraperitoneally is not sufficient to save the animals.

Further confirmation of the futility of bleeding alone in dogs, but which was successful in goats, is given by Underhill on page 177:

From the results of the experiments on the dogs which were placed in the oxygen chamber after venesection it is clearly evident that the respiratory function of the blood is not improved by venesection alone.

Clearly, then, the treatment worked out on gassed goats could not have benefited gassed soldiers, since the latter would react like dogs which could not be successfully treated. It is believed that the lungs of dogs are more sensitive than those of goats, and also those of men. Eventually a mixed treatment with several measures was found beneficial in animals, and apparently also in men, as far as applications had been made.

EXPERIMENTAL VALUE OF DOGS WITH "VOMITING GASES"

Another case of the indispensability of dogs in war-gas studies is that of the so-called "vomiting gases" (chlorpicrin and others). Ruminants, such as goats and cattle, do not vomit and thus show only the lachrymatory and respiratory irritant effects. But dogs, like men, react to these compounds with coughing, nausea, retching and vomiting. These symptoms cause soldiers to discard their masks and then they inhale the irritant gas with fatal effects. It is well known to veterinarians that the successful use of emetics among domestic animals is limited to the dog, cat, and pig, and thorough washing of the stomach is practicable only with the dog. Obviously, then, only the dog could be used to determine the efficiency of antidotes and treatment for gases which cause vomiting.

SPECIAL VALUE OF DOGS IN EXPERIMENTAL STUDIES WITH POISON GASES

The following succinct reasons for using dogs, in preference to other animals, are given on page 421, Vol. 14, "Medical Aspects of Gas Warfare," by Major M. C. Winternitz, M. C., who studied the pathology of certain war gases. In describing the effects of chlorin, he states:

In these studies the dog was the experimental animal of choice, although, as with other gases investigated, various other animals (guinea pigs, rats, mice, rabbits, cats, monkeys, and goats) were used by way of comparison. The reason for using the dog is that, in the study of the respiratory irritant gases, to which group the majority of war gases belong, this animal has certain well-recognized advantages: (1) The lungs and other organs are sufficiently large to make gross examination easy. (2) Anatomically the respiratory tract resembles closely that of man. (3) The conditions of pulmonary infection and the reaction of the lungs to bacterial and other injuries are much the same as in human beings."

WHY HERBIVORA ARE OF LESS VALUE

The herbivora, which include the ruminants, are not suited to the determination of chemical changes in the blood, such as acidosis, which develop during the action of the lung irritant war gases. The dietary habits of these animals are so different as to make it difficult to demonstrate the manifestations of acidosis. But not so dogs; these animals are admirably suited to the observation and treatment of this condition. Here belong also certain metabolic actions to which the dog is better suited physiologically than the herbivorous ruminants. In these respects the dog is again closer to man than goats or sheep, something long ago recognized by physiologists and biochemists, but apparently wholly unknown to the antivivisectionists.

AN EXAMPLE OF HALF-TRUTH EXPLOITATION

An amazing credulity is revealed by the following statement of an antivivisectionist, a Mr. Quinn, testifying before a subcommittee of a committee of the House of Representatives on H. R. 3890:

Recently an American judge sentenced a miscreant to one year in prison for setting a dog on fire with kerosene. Yet in medical laboratories dogs by the hundred are being burned with chemical gases by men who pose before the public as scientists. Not only is the suffering comparable in the two cases, but undoubtedly the dogs have read, if the scientists have not, that certain of the cyogen [meaning *cyanogen*] compounds used in gas warfare while being extremely toxic to dogs leaves goats and man unharmed. (*To Prohibit Experiments Upon Living Dogs, etc.*, United States Government Printing Office, Washington, 1938.)

Truly enjoyable must be a little canine fiction for Mr. Quinn, but let him consult the accurate records of the War Department, which depict the exploits of the dutiful dogs in chemical warfare service, and the sufferings of soldiers at the front, lest he be disappointed when the nations turn loose their "dogs of war."

OBLIGATION OF HUMANITARIAN CITIZENS

Meanwhile the duties of intelligent, wise, and practical people are plain. They must see to it that mankind is not deprived of the benefits of animal experimentation for the relief of human suffering and the control and treatment of disease, including war-gas poisoning. They must support the scientists and prevent attempts at saddling them with legal restrictions which would deprive them of experimental materials necessary in defense work for the country and the people.

The proposed "State Humane Pound Act," which would deprive scientists of the use of dogs and cats, and eventually all other animals, must be voted out of existence. California and the nation must be kept organized and active in proper scientific study of chemical warfare in line with other nations. At the time of the World War all the foreign armies, but especially the German, French, British, and Russian, were extensively organized for experimental research in the physiological action of war gases. This included the treatment, prevention and control of their effects. According to various reports, these organizations have not only been kept intact but greatly expanded.

The least that we can do for our own safety and the protection of our soldiers, and even our domestic animals, is to preserve the present system of scientific animal experimentation and vigorously register a protest against any proposed interference or action.

CHEMICAL WARFARES OF THE FUTURE

Lest anyone be deceived by subversive propaganda or misguided statements regarding scientific preparation for war, I may quote the following recent statements by Professor Ferdinand Flury of Würzburg ("Ueber den chemischen Krieg," Vol. 3, Gasschutz u. Luftschutz, 1937) to indicate the German attitude on the future chemical warfare:

The new forms of coming wars demand new methods. But the old methods may be improved, refined, and perfected into novel and better forms. Little will be done about the search for ever more active and toxic war compounds, as was the aim in the World War, since development here has reached a certain limit. The order of magnitude of one gamma, or one-millionth of a gram, which is equal in activity to a milligram for other war compounds, is hardly to be exceeded at present. Among the first considerations, there is no longer the killing, *i. e.*, annihilation, of the opponent, but rather the attainment of the greatest military objective according to the method which gets results. Anticipation, or thwarting, of the enemy's attack is a specially desirable aim. Toward that end, it may be considered that further development will proceed with the known types of green, yellow and blue cross gases. It is to be kept constantly in mind that there is no physical or spiritual function of the human organism which cannot be influenced by chemical means. . . . It would be fatal to accept the fact that the next war will begin where the last one ended. Meantime, there have been going on for decades the most intensive scientific developments in foreign countries, rich in technical progress in all fields. Obviously, the situation in chemical warfare will be an entirely different thing from that in the past. Indeed, we must consider that, in the future, the surprise may come from the other side. Therefore, Germany must work with all her means so she is not eliminated at the first attack, without a battle. For military reasons and self-preservation she must arm herself against surprise. Here is an earnest warning, and also an indication of the coming problem. This can only be solved with the coöperation of science and by pooling of all her resources and methods.

Leave it to the Germans for efficiency, foresight, and thoroughness. All that and more than Professor Flury says will be done. No stone will be left unturned, and there will be surprises for her opponent to assure Germany an early victory. Science, indeed experimental science in all departments, is now, and always has been, at the command of German war strategists for utilization of bigger and better chemical warfare. Could anyone be so naïve as to believe that German dogs and cats will be spared inconveniences of the general staff's methods for preparedness? Let us take heed and profit by the timely warning and allow no one, or nothing, to interfere with preparedness for the future chemical warfare in both defense and offense through animal experimentation.

SOME QUERIES FOR SENTIMENTAL ANTIVIVISECTIONISTS

Finally, and with all due consideration for their human qualities, it may be asked: Do not these sentimental antivivisectionists stultify themselves in the eyes of thinking citizens?

What is their answer to the delectation of their appetites with the flesh of slain animals? Do not they keep their feet and hands warm with shoes and gloves made from the hides of these same animals? What about the protection against and cure of disease among thoroughbred horses, cattle, hogs, poultry, in fact, all domestic animals? Even man's best friend for ages, the faithful dog! How do they justify the commercialized exploitation of confined, miserable wild animals in circuses and menageries? Are they not the cruel beasts, those outside and not within the cages and circus rings, that feast their emotions on exhibited and confined animals?

Perhaps selfish motives will not allow intervention in this and other inhuman conducts. Yet these "antis" stop at nothing to prevent the use of dogs and other animals in properly conducted scientific experimentation for the alleviation of human and animal suffering. The only consistency in these inconsistent attitudes is the unsportsmanlike conduct of the antivivisectionists.

For their sake, for our sake, and for the sake of all animals, whether in war or in peace, California's proposed "State Humane Pound Act" must not pass!

Stanford University School of Medicine.

THE IMPORTANCE OF THE EMERGENCY TREATMENT OF COMPOUND FRACTURES*

By Frederic C. Bost, M.D.
San Francisco

COMPOUND fractures are emergencies of the first order. This fact should be well established in the minds of all physicians and surgeons, for there are in the literature sufficient data to substantiate this statement. That compound fractures are not universally treated as emergencies seems most deplorable. The number of improperly treated cases seen late by clinics and specialists emphasizes the need for constantly bringing this problem before the medical public. Physicians in general cannot possibly realize the tremendous importance of early proper treatment, for, if they did, the common practice of delayed treatment would not be so prevalent. Local infection, general sepsis, gas gangrene, loss of limb, and chronic infection with seriously impaired functional end-results, and loss of life, frequently might be averted if we were all ever alert to the great necessity for immediate and adequate treatment. To bear out these contentions, I should like to cite two incidences:

Case 1.—I was called to see a boy, age 18, injured in a motorcycle accident some five hours previously. A local fireman had applied a crude wooden gutter splint, had saturated the gaping wounds and projecting tibia and fibula with iodin, and the physician had called a consultant only at the urgent request of the members of the family. It required considerable tact and an unalterable firmness to convince the physician that definitive treatment should not be left until the following morning. By immediate thorough debridement, wound cleansing, fracture reduction, primary wound closure, and proper fixation this patient was saved from innumerable dangerous complications, and the result was eminently satisfactory.

* * *

Case 2.—The second patient, about the same age, presents the opposite and tragic analogue to the first case. This patient was also a victim of a motorcycle accident. His lacerated lower leg, with compound fracture, was immediately dressed by a physician and placed in a pillow splint for twenty-four hours, during which time the foot and lower fragments angulated sharply enough to deprive themselves of all blood supply. The sudden onset of high fever, due to sepsis and gas gangrene infection, called for amputation, but too late to save the victim's life. These two cases represent two extremes; but between them lies a wide field for thought and discussion concerning compound fracture treatment.

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Chairman's Address, Industrial Medicine and Surgery Section of the California Medical Association at the sixty-seventh annual session at Pasadena, May 9–12, 1938.

INITIAL PROCEDURES

The moment of injury initiates the need for prompt and effective treatment. We have all been remiss regarding the immediate handling and transportation of our injured. We leave these important details to untrained or partially trained ambulance attendants, who should and must be taught by us the vast significance of their duties. Hemostasis, wound protection, effective immobilization of injured parts, and swift transportation constitute the first steps in treatment.

The second step, equally important and usually no better handled than the first, is the setting into prompt action of medical and hospital services required by the patient. The physician must be called promptly and respond immediately, for it is he who must survey the wound and the requirements of the patient and supply the measures to combat shock. The physician's services are usually far more easy to obtain that those of the hospital surgery, the x-ray services, and the anesthetist, whose promptness is equally necessary. No matter how prompt the surgeon, his efforts are frequently blocked by the uncoöperation of these accessory services, whose members, unfortunately, can rarely be made to realize the costliness of even momentary delay. Education of his coworkers by the surgeon for a second time becomes paramount.

SUBSEQUENT MEASURES

Third, we must consider the definitive treatment of the wound and the fractures. There is much difference of opinion concerning this stage of treatment. Despite these variations, the principles of treatment remain the same and should be thoroughly understood by all who are called upon to treat the compound fracture. The desired goal is represented by healed skin and soft tissues surrounding a bone in good functional alignment. In general, this requires the following measures:

1. Thorough cleansing preparation of the skin.
2. Rare judgment as to the need of deep-wound cleansing.
3. Thorough debridement of skin edges and soft tissues and bone.
4. Free lavage of the wound.
5. Hemostasis.
6. Reduction of the fracture.
7. Closure or other treatment of the wound.
8. Immobilization of the fracture fragments.
9. Special prophylaxis against infection.

COMMENT

The following discussion concerning these measures is based upon an experience of several years, during which time over 150 cases of compound fractures have been treated at the San Francisco Hospital on the University of California Service. It is thoroughly recognized that no one type of treatment is applicable to all compound fractures, but the general plan may be suited to the individual need.

It should here be stated that the element of time cannot be overemphasized. It is an extremely important factor in that treatment that might be possible during the first few hours after injury may be entirely impossible later. Also the rigid fixation of fractures during transportation needs reëmphasis, for great additional wound damage may occur between the accident and the appearance of the patient for definitive treatment.

CLEANSING OF THE SKIN

The wound should be covered while hair, grease, and dirt are removed from the surrounding skin areas. Previous to this time we do not believe that the external application of antiseptics is of any value.

DEEP-WOUND CLEANSING

This is a most important step. Many errors may be committed by failure to open what may appear to be a minor skin perforation. Careful inspection and palpation may reveal the softening and bogginess of tissue maceration or of a large hematoma. When in doubt the perforation should be thoroughly opened.

CASE 3.—The case of a male, age 19, injured in an automobile accident stresses this point. He was treated seven hours after injury, and had over the tibial fracture two small puncture wounds, which were bleeding freely. The wounds were merely dressed, and four days postoperatively a massive staphylococcus infection appeared at the fracture site. Thorough drainage, followed by amputation at nineteen days, failed to suffice and the patient expired on the twenty-first day from sepsis and gas gangrene, following an injury which was seen early enough to have been thoroughly debrided and closed.

THOROUGH DEBRIDEMENT

The traumatized wound edges should be sparingly trimmed away, the deep structures of the wound must be thoroughly exposed so all devitalized tissue can be completely excised, including dirty periosteum. The fascial spaces must be thoroughly explored. Loose bone fragments should be mobilized, thoroughly cleansed and left *in situ* to prevent nonunion from loss of bone substance. There is no excuse for failure to enlarge the wound sufficiently to thoroughly expose all of the structures within the damaged area. Without extreme caution tragedies may occur because a potential nidus of infection, however minute, is not exposed.

LAVAGE OF WOUND

The essential factor is free use of fluid for thorough mechanical washing of all the interstices of the wound. The chemical content of the irrigating solution cannot make up for insufficient washing. Tap water and saline are probably as effective as any other solutions. At least a gallon of fluid should be used.

HEMOSTATIS

Vessels of consequence should be ligated with due care that unnecessary ligature and its attendant planting of foreign material be avoided.

REDUCTION OF FRACTURE

Gentleness, and nontraumatic methods are the best insurance against disaster. The reduction should correct angulation, which causes pressure of bone against skin surfaces. The corrected position should be maintained while the limb is being placed in its immobilizing apparatus.

CLOSURE OR OTHER TREATMENT OF WOUND

Wherever possible and within certain arbitrary time limits, we favor the transposition of the compound fracture to a simple fracture by complete wound closure. This closure we effect, even when there is skin loss, by transverse incisions which allow mobilization of skin flaps to cover the traumatized area. Arbitrarily, we have set eight hours as the dead line for primary closure. There may be exceptional instances where closure after a longer time may be employed, but in these instances the relative danger is so high that one should ever be cognizant of the possible complications which might follow such treatment, and be ready to alter the treatment immediately upon their appearance. After eight hours the use of the Orr pack or of frequent wound irrigation is the method of choice. Our results with wound closure within eight hours have yielded a very low percentage of failures. On the other hand, the instance of sepsis in the open treatment has been great. This strengthens our convictions regarding the merit of early treatment, thorough cleansing, and immediate wound closure.

In order to employ this ideal and most simple method, all of the previously mentioned measures must be carefully carried out, and prudent judgment must be exercised.

Case 4.—For example, a five-year-old boy, who fell six feet, fracturing his radius and ulna, had a small perforated wound over the site of the radius. He was treated eight hours after injury, but the small perforated wound was merely enlarged to four centimeters, a size that did not permit a thorough lavage, and the wound was closed. A very lengthy strenuous and traumatizing attempt at reduction followed wound closure. The day following surgery he had a sharp febrile rise and developed gas gangrene involving all the muscles of the forearm. Neither serum therapy nor open debridement saved the arm from amputation.

This patient's treatment was delayed for five hours while hospital authorities were trying to contact his parents. The debridement was insufficient and the wound closure and the fracture treatment disastrous. Any of these factors or a combination of them might have been responsible for the end-results.

* * *

Case 5.—A second case illustrates the inadvisability of attempting to save a limb when there is too much primary damage. This man, age 48, was struck by falling lumber. He had extensive skin lacerations, and when the wounds were debrided three hours after injury they showed massive muscle pulverization. The wound was debrided thoroughly and treated by Dakinization, but circulation failure and sepsis resulted in the patient's death. Primary amputation with either open or closed flaps very likely would have saved his life.

IMMOBILIZATION OF FRACTURE FRAGMENTS

In our case series we have employed internal fixation only twice. In both instances the wound was closed primarily and no untoward results occurred. These were carefully chosen cases treated early. We do not generally favor internal fixation, but fully realize it can be used with the Orr pack or other open methods.

External fixation by means of pin traction with the pin far removed from the site of fracture, or a plaster cast with or without pin fixation, have been the most satisfactory methods used by us. In some of the earlier cases four pin-fixation methods had been used. This usually means that pins may be in close proximity to the fracture and, in fact, four cases treated by this method resulted in infection and chronic sepsis.

SPECIFIC PROPHYLAXIS

Routinely, our cases have been given 1500 units of antitetanic serum.

We have not used gas gangrene antisera routinely, but in badly macerated cases have given a therapeutic dose of 20,000 units at once and have repeated this frequently if we felt it necessary.

IN CONCLUSION

The purpose of this presentation has been to make a plea for the recognition of the compound fracture as an emergency. I have attempted to point out the importance of the early and the immediate treatment of the compound fracture. I have stated in detail what I consider the important steps in the adequate treatment of such fractures, and have called attention to some of the complications which may occur when important principles are neglected.

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INTRATRACHEAL INSTILLATION OF LIQUID PETROLATUM: PULMONARY INJURY THEREFROM*

By George Hamilton Houck, M.D.
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Discussion *by Dean E. Godwin, M. D., Long Beach.*

FOR almost fifty years certain inflammatory lesions of the respiratory tract have been treated by some physicians with intratracheal instillations of warm liquid petrolatum, usually containing small quantities of camphor and menthol. Little attention was given to the pathogenic potentialities of oil within the lungs until about ten years ago, and even then the lung injuries which aroused the interest of the pathologist were due to the accidental aspiration of oils in young and debilitated infants. A smaller number of cases of fatal lung injury due to oil have been reported in adults. One patient[16] aspirated butterfat because of cardiospasm, and in another[9] the source of the mineral oil was not known. Laughlen's patient,[11] who had a laryngeal paralysis, was given nasopharyngeal instillations of mineral oil. Other adults[1,3,5,15] were the victims of prolonged self-medication with large amounts of mineral oil used by nasal instillation.

TERMINOLOGY

No satisfactory terminology for this pathological process has developed. The primary acute reaction has been called lipoid pneumonia.[14] Ikeda[9,10] has recently suggested the term "oil aspiration pneumonia." This disease, which is most frequently seen in the infant, is terminal as a rule; but an occasional adult survives, and the major portion of the pathological change is then due to the slowly developing fibrosis. This has been termed "pulmonary induration," "pulmonary contraction,"[3] "pulmo-

* Read before the Eye, Ear, Nose and Throat Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.



Fig. 1.—Chest roentgenogram taken six years after onset of symptoms. The right lower lobe persists only as a solidified remnant lying in the cardio-hepatic angle. There is an increased translucency of the entire right lung field due to compensatory expansion of the right upper lobe. Similar changes have taken place upon the left.

nary cirrhosis,"[1] and "pulmonary oil granuloma."[8] This late result, which is frequently fatal, is chiefly important from the point of view of its prevention. It is always a therapeutic disaster and is rarely unavoidable. The use of oils in the treatment of diseases of the respiratory and gastro-intestinal tracts has increased greatly within the past few years. It is unfortunate that little attention has been paid to the possibility of harm, if these oils gain entrance to the terminal bronchioles and pulmonary alveoli. Experimental work[7,12,13,9] has shown that certain classes of oils are less dangerous for use in the nose and throat. Analysis of the case histories of patients who have developed pulmonary oil injury indicates those conditions in which aspiration is most likely to occur. Some cases are caused by self-medication, and the physician must watch for those patients who are given to the use of large amounts of medicated mineral oil in the upper respiratory passages.[15]

The following instance of an adult fatality from lung injury produced by mineral oil is unusual in that the intratracheal instillations were all given by a physician in the treatment of an acute bronchitis. The resultant illness persisted for six years and eight months, following the original oil injury, with the production of extraordinary changes in the lungs due to the fibrosis which followed the initial acute reaction. In this case the oil was repeatedly found in the sputum. It was discovered in the lungs at necropsy in large amounts and identified, by chemical methods, as mineral oil.

REPORT OF CASE

An unmarried business man, forty-seven years of age, entered the hospital on August 26, 1928, complaining of



Fig. 2.—Left lung viewed from behind after making a coronal section through the long axis of the lung. The emphysematous upper lobe is seen at the left and the collapsed and solidified lower lower at the right. The upper part of the primary fissure is not obliterated. The area of collapse and the zone of reaction in the lower lobe are apparent. Note the thickened pleura over the lower half of this mass.

malaise, a slight nonproductive cough, and fever. The family history was irrelevant and his past health had been good. The patient, who was nervous and irritable in disposition, had been distressed for the preceding six months by a mild chronic irritation of the nasopharynx and larynx. He had been under the care of an otolaryngologist, who had treated him by the local application of liquid petrolatum, which contained 0.2 per cent of both camphor and menthol. Within two weeks preceding hospital entry, an acute bronchitis had been treated with ten intratracheal instillations of the same oil. This oil was warm when injected, and each dose was of four or five cubic centimeters.

Fever and cough were noted upon physical examination, together with diminished resonance and bronchovesicular breath sounds over the right lower lobe. Dyspnea and cyanosis were evident, but no râles were heard. Repeated examinations of the urine revealed no abnormalities; the blood exhibited only a slowly increasing leukocytosis which reached a peak of 18,250 per cubic millimeter. A blood culture, Widal, and blood Wassermann were all negative. No sputum was available until in October, at which time no tubercle bacilli were found. No examination for oil in the sputum was made at this time.

The first roentgenogram upon August 31, 1928, showed an increase in the density of the mesial portion of the lower left lobe between the hilus and the left base, and an increase in the density of the entire lower right lobe of the lung. The upper margin of the involved lower right lobe was sharply delineated, and above this the lung fields were normal in density. In the involved areas there was an accentuation of the finer lung markings, which extended to the periphery of the lung fields. The greatest density was shown in the vicinity of the cardiohepatic angle.

Convalescence was slow, the temperature approaching normal only by the sixteenth day of hospital treatment.

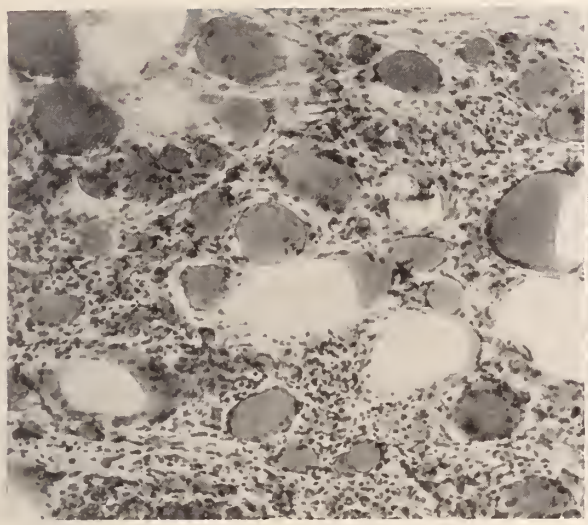


Fig. 3

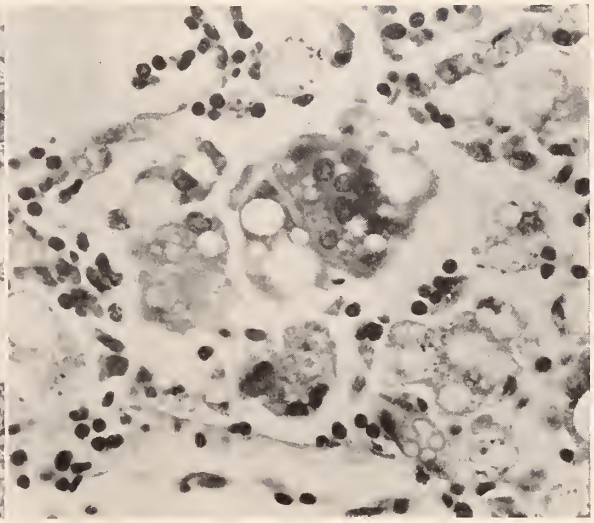


Fig. 4

Fig. 3.—Low power photomicrograph of frozen section of lung stained with Scarlet R. The alveoli are filled with masses of stained oil, some of which escaped in preparing the sections. Fibrosis and leucocytic exudation are apparent.

Fig. 4.—High power photomicrograph of mediastinal lymph node showing phagocytic cells accumulating in the peripheral sinuses. There is considerable carbon in addition to the oil vacuoles. Many giant cells have been formed.

He was discharged on November 29, 1928, in fairly good condition and without respiratory symptoms. The unusual shadows persisted in the roentgenograms of the chest. During the following four years he was able to attend to his business affairs, but suffered from frequent respiratory infections. No oil was used in the treatment of these later infections. He aged rapidly in appearance, but lost weight and strength very slowly.

In May, 1932, after a "cold" he developed a severe cough with the production of large quantities of sputum. This sputum was examined repeatedly and was always purulent, of a grayish-green color, and occasionally blood-streaked. Tubercle bacilli were never found, but all sputum specimens were remarkable for the constant presence of numerous free oil droplets. These were uniform in size, about twice the diameter of a red blood cell, and were estimated at about 100 to 150 per high-power field. Cultures for the pathogenic fungi were negative. During this exacerbation of symptoms there was dullness over the right base, and numerous coarse and medium crepitant râles were heard over the lower two-thirds of the right lung and also over the left base.

The cough and sputum production continued almost unabated for the following five months, but there was no fever or leukocytosis. The dullness which had been present over the base of the right lung disappeared, and was slowly replaced by hyper-resonance which extended up to the tip of the right scapula. No more râles were heard, and the breath sounds became normal in quality.

A series of roentgenograms, made in 1928 to 1934, showed the lower lobes of the lungs gradually retracting until, in the roentgenogram made on November 26, 1934, they persisted only as dense remnants lying near the mediastinum. In this film there was noted a relative translucency of the right lung field, due to compensatory emphysema of the right upper lobe. (Fig. 1.)

During the spring of 1934 the patient continued to improve and, in the absence of all respiratory symptoms, regained his normal weight and a fair amount of vigor. In spite of the long duration of the pulmonary disorder, there was no clubbing of the fingers. In April, 1935, another acute respiratory infection occurred, and on April 19 he suddenly developed pulmonary edema with marked cyanosis. There was little response to treatment, death occurring after eight hours. The clinical diagnosis was bilateral oil tumors of the lungs resulting from the intratracheal instillation of liquid petrolatum six years and eight months previously.

Necropsy:

The following observations are taken from the necropsy protocol.

Gross Description of Lungs.—The upper lobes of both lungs were pale and soft and had glistening pleural surfaces. They were markedly emphysematous anteriorly, and moderately edematous along the posterior margins. An oval mass was present around the hilar region at the base of each lung; the right measuring 6 by 6 by 5.5 centimeters, and the left 14 by 8 by 8 centimeters. These masses were hard and rubbery, and had ragged, scarred surfaces where they had been densely adherent to the parietal pleura.

Cut sections of the mass on the right revealed two oval nodules, each 5 by 3 centimeters, circumscribed by tough fibrous capsules 2 to 4 millimeters in thickness, and adherent to each other, to the diaphragm and to the adjacent surface of the upper lobe. It was subsequently demonstrated, by dissection of the bronchi, that these nodules were the remnants of the lower and middle lobes of the right lung. The capsules represented the former pleural surfaces. The tissue exposed by sectioning was solidified except for a crescent-shaped rim of spongy lung parenchyma at the upper margin of the mass. The cut surface was grayish black in color, mottled by many irregular solitary and conglomerate caseous zones which varied from 0.1 to 1.0 centimeter in diameter. The grayish tissue was firm and rubbery in consistence. When it was squeezed, droplets of a clear, viscid, greasy substance collected on the surface. This substance floated when placed in water.

Cut sections of the mass on the left revealed a single nodule, demonstrated by dissection to be the lower lobe. (Fig. 2.) The appearance of the solidified portion was similar to that of the lesion in the right lung. The mediastinal lymph nodes were enlarged and had a greatly cut surface.

Microscopic Description.—The white caseous areas were necrotic and structureless. In the gray solidified areas there was a reduction in the size of the air sacs and many were obliterated. The alveolar epithelium was retained in places and the air spaces were filled with vacuolated macrophages. Elsewhere the alveolar lining was replaced by a collar of phagocytes, which encircled large vacuoles that occupied an entire alveolus. The alveolar walls were greatly thickened by nodules or lymphocytes and infiltrations of vacuolated macrophages. The connective tissue was increased in quantity, and was dense and hyaline in areas where alveoli seemed to have been obliterated.

COMMENT

The vacuoles in the lung tissue and phagocytic cells were spaces formerly occupied by soluble material which had been removed in the preparation of paraffin sections, but in frozen sections,

stained with Scarlet-R, this material was retained and was stained bright red (Fig. 3).

There was a marked foreign body reaction in the mediastinal lymph nodes (Fig. 4). The lymph sinuses were filled with phagocytes, among which multinucleated giant forms were numerous. These cells were heavily laden with globules of foreign material and fine granules of carbon pigment.

Occasional small collections of foreign-body giant cells containing numerous globules were found in the malpighian bodies of the spleen.

Chemical Identification of the Oil.—A specimen of oil was obtained from the mass at the base of the left lung, partly through expression and partly through ether extraction. About five cubic centimeters of oil were obtained from approximately one-fifth of this single tumor mass. The saponification number was found to be practically zero. No glycerol was present. Thus, since the oil was neither of vegetable nor animal origin, it was necessarily mineral oil.

All oils cause an inflammatory reaction when they gain entrance within the alveoli. The most severe reactions are caused by oils of animal origin, as fish-liver oils, probably because an enzyme is present in the lung to cause hydrolysis and the liberation of fatty acids. Thus, lipoid pneumonias, following the aspiration of butterfat and cream in vomitus or during gavage, are quite severe. The oils of vegetable origin, with the exception of chaulmoogra oil and certain specimens of olive oil containing high percentages of free fatty acid, call forth but little reaction.[9,13] This is presumably due to the absence of an enzyme within the lung tissue to facilitate the hydrolysis of vegetable oils. For this reason, if an oil must be used as a vehicle for medication, it is best to choose an oil of vegetable origin.

Mineral oil or liquid petrolatum stands in an intermediate position. It is, of course, chemically inert and acts only as a foreign body, but does produce inflammatory changes, phagocytosis and subsequent fibrosis. Most of the reported cases of pulmonary oil injury are clearly due to the presence of this oil within the alveoli.

REPORTS IN THE LITERATURE

Fatal pulmonary oil damage has been reported in infants from the use of plain liquid petrolatum dropped into the nose, or given by mouth.[2,4,6] When drugs such as menthol are added to the mineral oil, as in the too frequently used "nose drops," it is believed that the local anesthetizing effect of the menthol facilitates the entrance of the oil into the trachea.[12] In other cases fish-liver oils have been given by force, and aspirated during the child's struggles. In patients with serious disease of the central nervous system, careless use of the gavage tube has introduced butterfat directly within the trachea. The same result has followed the aspiration of vomitus in cardiospasm.[16] All the above accidents can occur in irrational or comatose adults. In addition, fatal injury has been reported in adults from the long continued use of nasal sprays and drops. Prolonged self-medication of this type seems to introduce the greatest quantity of mineral oil. There are patients, some suffering with atrophic rhinitis, and others with an apparent neurosis, who complain of a dry sensation within the nose, and who obtain transient relief by the constant use of large quantities of either plain or medicated mineral oil. The subsequent lung lesions frequently go undiagnosed, or are misinterpreted as tuberculosis from the history and roentgenogram.

THERAPY

As therapeutic measures are relatively ineffective after oil has entered the lung, the physician's chief duty is to *prevent* lung injury from oil aspiration. This may be done by using great care in the feeding and medication of sick infants, and in adults with serious disease of the central nervous system. Force should never be used in the administration of fish-liver oils. The direct intratracheal instillation of liquid petrolatum should be abandoned. The ever-present "nose drops" are not safe for routine therapy, for some patients develop a habit of prolonged self-medication. If it seems necessary to carry a drug to the nasopharynx in an oily solution, it would appear safer to use a vegetable oil which does not contain free fatty acids.

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DISCUSSION

DEAN E. GODWIN, M.D. (820 Professional Building, Long Beach).—The Program Committee invited Doctor Houck to present this subject before our section because it was felt that the importance of this danger has not been sufficiently emphasized to the otolaryngologist.

Doctor Houck has presented his subject well, and we are indebted to him for stressing the dangers of this condition. When he states that the condition is terminal, as a rule, in the infant, and frequently fatal in the adult, we should each think how much we personally have contributed to this danger among our patients.

Many otolaryngologists routinely prescribe oily sprays; many pediatricians frequently prescribe plain or medicated liquid petrolatum for instillation in infants' noses by a medicine dropper. Too many laymen think that if a little medicine is good, more is better, and use these oils much more freely than the physician intends.

Doubtless there are many more cases of this condition than have been diagnosed or suspected. The carefully worked-out case presented by Doctor Houck is startling in its findings, but is only an example of what may be going on in some of our patients.

It behooves us, then, to carefully weigh the dangers of indiscriminate nasal or intratracheal instillations of oil or the careless prescribing of oily medicaments to our patients.

CIGARETTE SMOKING*

ITS EFFECT ON THE VOLUME AND ACIDITY OF THE GASTRIC JUICE, WITH PARTICULAR REFERENCE TO DUODENAL ULCER

By HAROLD ROSENBLUM, M.D.
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DISCUSSION *by Arthur L. Bloomfield, M. D., San Francisco; Allan L. Cohn, M. D., San Francisco; Harold Lincoln Thompson, M. D., Los Angeles.*

THE medical literature contains frequent references to the proscription of tobacco smoking in the management of patients with peptic ulcer. This attitude has been derived largely from clinical observation, and has been handed down by authorities whose opinions have been considered worthy of respect and repetition. Many distinguished medical writers [1-4] have maintained the belief that tobacco smoking may aggravate the symptoms of peptic ulcer, or, further, that smoking may predispose to this disease.

Comment has been made, notably by Trowell [5] and by Johnson,[6] that such opinions have been held in spite of the absence of scientific proof that the smoking of tobacco is harmful to patients with ulcer.

It has been shown [4, 7] that the inhalation of tobacco smoke by smokers has an appreciable effect on the peristaltic contractions of the stomach, as demonstrated by kymographic registration. This effect is evidenced by a period of hypercontractility which continues for about fifteen minutes after the beginning of the inhalation of cigarette smoke, and which is followed by a 45-minute period of atony.

The volume and acidity of the gastric juice of patients with functional and with organic gastrointestinal disease have been studied by Gray.[8] His findings indicated a variable response to tobacco in the patients with functional disease. In patients with duodenal ulcer, smoking was usually followed by an increase in the volume of gastric juice which was associated, although not constantly, with increase in its acidity.†

Skin-testing of patients with peptic ulcer for allergic sensitivity to tobacco or its extracts has shown no significant relationship.[8-12]

Search for a statistical correlation between the habit of smoking tobacco and the incidence of peptic ulcer has been productive of only negative results by investigators in both England [5] and America.[13] No etiological relationships could be discovered by this method of study.

PROBLEM AND METHOD

The present study was undertaken to determine the immediate effect of the smoking of a single cigarette upon the acidity and volume of the gastric juice of fasting patients with and without peptic ulcer. Conditions of the experiment were controlled so that comparison could be made between the "ulcer" and "non-ulcer" groups. The effect of the tobacco was compared with the response produced by the subsequent administration of a dose of alcohol adequate to produce definite increase in the acidity of the gastric juice.

The following technique was used:

The patients to be used as subjects for the experiment had been instructed to abstain from eating, drinking, and smoking for at least twelve hours preceding the test, which was started at 8:30 a. m. A Rehfuss tube was introduced into the patient's stomach, and all gastric contents were removed, mixed, measured for volume, and were then reintroduced through the tube into the patient's stomach, save for 10 cubic centimeters which were retained for chemical examination.‡ The subject was then asked to smoke a cigarette, using any popular American brand. Twenty minutes after smoking was begun, all of the gastric content was aspirated for examination. Fifty cubic centimeters of 7 per cent ethyl alcohol were then instilled through the tube, and at the end of twenty minutes 10 cubic centimeters of the gastric juice were removed for study. The total volume of the gastric content was not determined at this stage, the last specimen being used only for determination of acidity. The possibility that an effect might be produced by the passage of the tube and the reinjection of gastric secretion was controlled by study of a group of patients in whom these procedures were

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† Since this paper has been in press, experiments have been reported (Bernay, P., and Faure, G.: Decaffeinized Coffee and Denicotinized Tobacco in Gastric Diet, Arch. d. Malad. de l'App. Digest, 27:865, 1937) which indicate that tobacco, including "denicotinized" tobacco, acts as a powerful stimulant to the gastric secretions as to both its acidity and volume.

‡ In these experiments the concentration of free and total hydrochloric acid in the gastric juice was expressed in terms of the number of cubic centimeters of tenth normal sodium hydroxid (stated in the text as degrees of acidity) necessary to neutralize 100 cubic centimeters of gastric juice, using dimethyl amido-azobenzol and phenolphthalein as indicators.

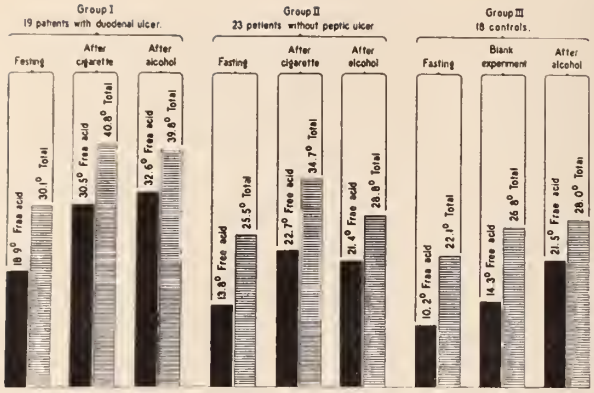


Table 1.—The response of gastric juice acidity to the smoking of a cigarette followed by 50 cubic centimeters of 7 per cent alcohol (groups 1 and 2), and to the same dose of alcohol alone (group 3). (Ewald degrees—gastric acidity.)

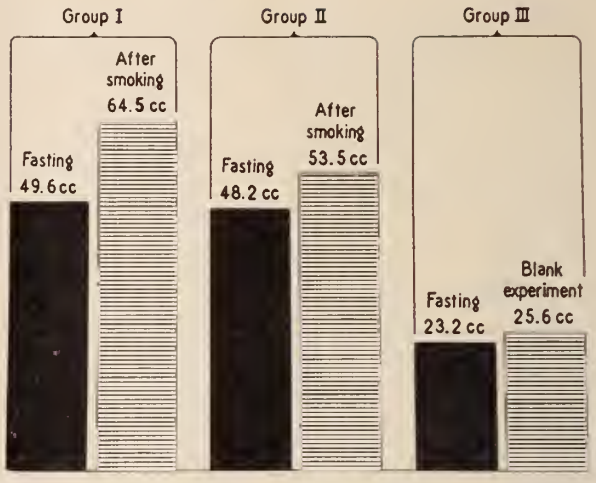


Table 2.—The fasting volume of the gastric juice compared with the volume after smoking.

carried out, but with omission of the smoking of the cigarette.

Thus, three groups were studied: (1) Nineteen patients (twelve males and seven females) with duodenal ulcer; (2) twenty-three patients (twelve males and eleven females) with miscellaneous gastro-intestinal conditions, functional and organic, but without peptic ulcer or carcinoma; and (3) eighteen patients (four males and fourteen females), similar to those in group (2) (with the exception of two who had duodenal ulcer), who were used as a control group. All patients in groups (1) and (2) were chronic cigarette smokers who habitually inhaled the smoke. No patient with gastric ulcer, Addisonian anemia, or achlorhydria after the administration of alcohol, or who had had a gastro-enterostomy, was included in any of the groups. The average age of the patients in each of the three groups was forty-three years. The total number of patients in the three groups was thirty-eight males and twenty-two females.

FINDINGS

Group 1. *Cases of Duodenal Ulcer.*—In fifteen of the nineteen patients with duodenal ulcer, the smoking of a cigarette caused a substantial average increase in the free and total hydrochloric acid in the gastric juice. In twenty minutes following the beginning of smoking, the average free acidity rose from 18.9 to 30.5 degrees, an increment of 11.6 units. In the same period the average total acid increased from 30.1 to 40.8 degrees, a gain of 10.7 units. These changes (which can be seen in Table 1) represent increases of 61 per cent in the free, and 35 per cent in the total acid. Four patients showed little or no change. The subsequent administration of 50 cubic centimeters of 7 per cent alcohol produced practically no further increase in acidity. This stimulus, acting during the second twenty-minute period, resulted in an average rise of only 2.1 degrees of free, and a drop of 1.0 degree of total acidity. In fact, ten of the nineteen patients in this group showed less acidity, both free and total, twenty minutes after the administration of alcohol than they had had twenty minutes after beginning to smoke a cigarette. There were two instances in which lower concentrations of acid were found after both tobacco and alcohol had been used than the acidity which had been noted when the patients were in a fasting state.

In twelve cases there was an average increase in the total volume of gastric secretion from 44.5 to 72.1 cubic centimeters. In six other cases there was an average decrease from 62.2 to 54.4 cubic centimeters. In the one remaining case, in which the fasting content had measured 35 cubic centimeters, there was no change in volume. The average volume of the gastric juice in the entire group of nineteen patients with duodenal ulcer, was found to have increased after smoking from 49.6 to 64.5 cubic centimeters (Table 2). When it is remembered that this large volume of gastric juice also had a higher concentration of acid, it becomes apparent that the increment represented by greater volume and higher acidity is considerable.

Group 2. *"Non-ulcer" Cases.*—Twenty-three patients with miscellaneous gastro-intestinal conditions, but without peptic ulcer, were studied similarly. As before, the effect of smoking on the gastric juice was determined; and the response to subsequent instillation of alcohol was noted also. The average fasting acid was found to be 13.8 degrees of free and 25.5 degrees of total acid—which are values, of course, lower than those found in the patients with ulcer. After smoking, titration of the gastric juice showed 22.7 degrees and 34.7 degrees, respectively, of free and total acid, indicating increments of 8.9 degrees in the free and 12 degrees in the total acidity. As might be expected, the average increments were not as great as those found in the patients with duodenal ulcer, although the increases in percentage over the acidity of the fasting specimens were approximately the same as those found in Group 1. In Group 2, the rise in concentration of acid following smoking occurred in fifteen of the twenty-three patients. There were three cases in which the degree of acidity was not affected; and five others in which slightly lower values for acidity were found after smoking (Table 1).

The effect of smoking on the total volume of gastric juice was negligible, the average gastric content decreasing from 48.2 to 44.3 cubic centimeters.

As in Group 1, the administration of alcohol subsequent to the smoking period produced no further increase in concentration of acid (Table 2). The acidity twenty minutes after instillation of alcohol was, in fact, slightly less than it had been twenty minutes after the beginning of inhalation of cigarette smoke.

Group 3. *Controls.*—The eighteen patients in this group were used to study the possible effect on the gastric juice of the presence of the stomach tube and of the aspiration and reinjection of gastric contents. The smoking of the cigarette was omitted, but otherwise the experimental procedures were the same as those used with Groups 1 and 2. The administration of alcohol was included so that its effect on patients who had not smoked previously could be compared with its effect on the other groups. In Group 3, the average values for free and total acid in the fasting state were 10.2 and 22.1 degrees, respectively. After aspiration and reinjection, but without smoking, the values (Table 1) were 13.4 and 26.8, respectively. This lack of any material change was, however, in marked contrast to the brisk rise in acidity, following the instillation of alcohol, to levels of 21.5 of free and 28.0 degrees of total acid. Determinations of the volume of the gastric secretion (Table 2) showed no appreciable change following the control experiment.

CONCLUSIONS

1. Cigarette smoking by patients in a fasting state produced a significant average increase in the free and total acidity of the gastric juice in a group of nineteen patients with duodenal ulcer; and, to a somewhat less extent, in a group of twenty-three patients without duodenal ulcer.

2. The magnitude of the average increase in acidity after the smoking of tobacco was such that the subsequent administration to each patient of 50 cubic centimeters of 7 per cent ethyl alcohol produced no further rise.

3. A control study of eighteen patients was made, with the smoking omitted from the procedures; and in these patients the gastric acidity was not materially increased until after the instillation of alcohol, when definite increases in acidity were noted. This makes it clear that the response obtained in the first two groups was truly attributable to the use of tobacco.

4. A significant increase in the volume of gastric juice following smoking was found in the group of patients with duodenal ulcer. In these patients the average volume rose from 49.6 to 64.5 cubic centimeters, an increase of 30 per cent.

5. The clinical observation that the smoking of tobacco has an unfavorable influence on the condition of patients with peptic ulcer finds confirmation in the experiments reported above.

450 Sutter Street.

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DISCUSSION

Arthur L. Bloomfield, M. D. (Stanford University Medical School, San Francisco). — Doctor Rosenblum's interesting observations seem quite definite, but there would appear to be some question as to his conclusion that, because acid increases after cigarette smoking, it is therefore necessarily harmful to patients with peptic ulcer. Furthermore, we have had some different results in studying gastric secretion in peptic ulcer cases. With duodenal ulcer, for example, the basal gastric acidity without any stimulus averaged in our series 95, and even when the powerful stimulus of histamin was added to this, there was relatively little further increase.

We are somewhat skeptical as to the adequacy of Doctor Rosenblum's method of attacking his problem, especially as regards returning the aspirated gastric juice to the stomach. Another procedure would seem to be to get a curve of the basal secretion over an hour or so, and then, on the following day, to repeat the test on the same patient while smoking.

Allan L. Cohn, M.D. (450 Sutter Street, San Francisco).—Doctor Rosenblum's conclusions, based on accurate scientific observation, can bear the scrutiny of critical analysis. His work confirms, by scientific experimental proof, the beliefs and suspicions held for many years by clinicians that tobacco smoking is detrimental to the healing process of peptic ulcer.

Several points that he brings out merit analysis and discussion.

Proof has been presented in his series of ulcer cases that there is a definite increase in volume and acidity of the gastric secretion. But he has also shown that in his Group II there is approximately the same percentage of acid increase. Group I shows an increase of 60 per cent in free acid; Group II, a 64 per cent increase. Group I shows a 35 per cent increase in total acid, and Group II a 36 per cent increase.

From these figures it might be inferred that the use of tobacco has the same effect in nonulcer cases with gastric symptoms as in peptic ulcer cases. I wish to question this point. My criticism here is not directed so much to the conclusion as it is to the content of the premise. I desire to

raise the question: Does Group II consist only of nonulcer cases? If so, the conclusion would be logical.

From my recent observations with Schindler at the Billings Hospital, Chicago, and from my own experiences with the new flexible gastroscope, I believe we shall be compelled to revise, for purposes of classification as well as treatment, our ideas of what constitutes functional gastric disease. I am quite convinced that there exists a large group of so-called functional gastro-intestinal cases which can be shown to have mucosal ulcerations, and/or a type of gastritis which can be proved only by direct visualization of the gastric mucosa. These cases should be classified at present in Group I for purposes of this experiment, and not in Group II. If Group II, as amended, would still show the same percentage increase in acid, then only might one logically conclude that cigarette smoking causes the same percentage increase in gastric acidity, in gastric functional, and in peptic ulcer cases.

The importance of the work of Lickint, and of Danielopoln Simici and Dimitrin, referred to by Doctor Rosenblum, should be emphasized. They showed that inhalation of tobacco smoke causes, in smokers, gastric hypermotility. The use of a control group of smokers with normal stomachs, in Doctor Rosenblum's experiments, might have correlated these findings as regards acidity. This same group could also have shown the comparative effect of tobacco smoking by normals as against smoking by ulcer patients. The question would then arise, if there is a difference, is it due to the gastric pathology present? If no difference could be shown between the two groups, could we say that the increased acidity is an essential nicotine effect, or an effect due to some other factor present in the smoking process? The recent observations of Mahlo, as described in *Deutsche Medicine Wochenschrift*, 62: 1216, 1936, would lead us to the belief that the increase in acidity in Doctor Rosenblum's cases is not due to the effect of nicotin on the gastric pathology present. Mahlo contends that nicotin is not absorbed by either acid or alkali gastric mucosa, and has no effect on the lining epithelium of the stomach. It is absorbed, he says, in other organs and exerts its effects in the stomach through the splanchnic nervous system.

One of the most interesting facts presented in this paper is that the administration of alcohol subsequent to the smoking period produced no further increase in concentration of acid. The knowledge of this fact by an ulcer patient who, having persisted in smoking, wishes also to return to alcoholic indulgence, could in itself lead to a very interesting discussion between patient and his medical adviser.

This paper presents many problems for further investigative work, and it is hoped that Doctor Rosenblum will continue his study.

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Harold Lincoln Thompson, M. D. (1930 Wilshire Boulevard, Los Angeles).—Doctor Rosenblum has ably presented a paper on a subject of importance to those interested in the physiology of the stomach and duodenum, and in peptic ulcer. I have been interested in problems of gastric secretion, with particular reference to the surgery of the stomach, for a number of years.

In an interpretation of the results of Doctor Rosenblum's study, one must recognize the three phases of gastric secretion, namely, cephalic (psychic), gastric, and intestinal. Doctor Rosenblum has stated that all patients in his test group were chronic cigarette smokers. Since gastric and intestinal phases of gastric secretion for all practical purposes were excluded by the conditions of this study, the observer has dealt only with the cephalic phase of secretion. The response which the author observed in his experiments was conditioned in all instances by an appetite for cigarette smoking. It would be interesting, therefore, to know the reaction in a similar group of nonsmokers as a further control on the author's observations.

I believe that in these experiments the other phases of gastric secretion are relatively unimportant, excepting in so far as the subject may have swallowed saliva or mucus, thereby slightly neutralizing the gastric content. I hope that the author will favor us with a subsequent report on the observations on similar groups of patients who are not chronic cigarette smokers.

PHYSICS: ITS APPLICATION TO ROENTGEN THERAPY*

By Robert E. Pugh, Jr.
Pasadena

Discussion *by Kenneth S. Davis, M. D., Los Angeles; John D. Lawson, M. D., Sacramento; George Stevenson Sharp, M. D., Pasadena.*

THE magnitude of roentgen therapy dosages is expressed in terms of the "r unit," which is merely a unit of quantity of radiation analogous to the "milligram" used for expressing the dosages of pharmaceuticals. It was originally defined in the interests of universal duplication by physicists rather than in terms of any physiological or biological reaction. Although its magnitude is arbitrary, its use in expressing relative quantities of radiation is not limited by this fact. Changing of the size of units expressing a certain quantity does not influence the magnitude of the quantity itself, if the number of units is changed to compensate for the change in size. For example, in the case of drugs; if the gram were the usual unit instead of the milligram, obviously the number of units required for a given quantity would be just 1/1000th the number required in terms of milligrams.

NEED OF A UNIVERSAL UNIT

It should also be pointed out that the magnitude of successful dosages, in terms of r units, were determined clinically by radiologists and clinicians, physicists having had no direct influence on the choice of such values. Roentgenologists have recognized the position of the physicist as advisor and aide in applying physical principles to these dosages, but other physicians need have no fear that the dosages themselves have been tampered with by nonmedically trained men. The same clinical or biological dosage could be expressed in any units without altering its biological effect; the important point is to choose the units so that they may be easily and universally duplicated. It appears to be desirable that the dosage be expressed in terms of a universally understood quantity, rather than in terms of some degree of biological reaction which is incapable of exact description and duplication.

DEFINITION OF THE R UNIT

The official definition of the r unit has been given in the literature many times, but for the purposes of this discussion such a formal definition may well be omitted, and attention rather directed to the fact that it is merely a unit of quantity of radiation, just as the milligram is a unit of weight of material. More universal understanding of this fact should lead to greater confidence in roentgen therapy, and less confusion in the concepts of dosage.

It so happens that the magnitude of the r unit which was chosen is such that, in the present state of the science of therapy, most dosages fall within the range of 50 to 5,000 r units. Because of the way in which it is defined, the r unit (or intensities

* Read before the Radiology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–5, 1937.

in terms of r units) may be determined directly by means of the standard open-air ionization chamber. Thimble-type ionization chambers, especially useful for surface and depth measurements, may be calibrated by comparison with the standard air chamber and used as secondary standards.

FUNCTION OF THE X-RAY PHYSICIST

The function of the x-ray physicist should be properly to measure the x-ray output of the equipment in r units so that the dosages will be reported in identical units throughout the world. Clinical medicine is burdened with too many other variables by nature not to eliminate variation in units when it is possible. If the dosage is so measured, then variations in clinical response may be assigned solely to individual variation or different pathological conditions. Calibration of intensity is essentially the same sort of standardization as the United States Pharmacopeia standards of concentration in pharmaceuticals. It is evident, then, that the calibration of the output in r units is not, in itself, any guarantee of successful clinical therapy. The deciding factor must always be the skill of the therapist in applying the experimentally determined dosages to the particular pathological problem at hand.

CHECKS ON THE OUTPUT INTENSITY

It is necessary to measure the output at such intervals that the roentgenologist may be continually confident that his dosages are being delivered exactly as planned, and have not varied due to possible mechanical and equipment variability. Variations in output seem to be due principally to changing characteristics of the x-ray tube itself. Sometimes such changes occur, sometimes not, but periodic measurement in r units will detect such changes or verify the constancy of output.

The x-ray machine control settings for obtaining a given kilovoltage actually select the desired fraction of the supply-line voltage to apply to the primary of the x-ray transformer. Occasionally the line voltage may change or fluctuate, in which case, although the selected fraction remains the same (for the same control setting), the magnitude of that fraction of the line voltage will be different, resulting in different kilovoltage on the x-ray tube and different output intensity. To avoid this variable factor, the indication of the primary voltmeter or kilovoltmeter should be relied upon rather than the control setting values. If the line voltage varies, the controls should be changed so that the voltmeter reading is the same as before.

Needless to say, all the factors of the technique chosen must be exactly determined to avoid error; differences in filter and distance are especially to be avoided to eliminate serious mistakes in dosage. It is only by using accurate dosage that the effectiveness of different techniques may be evaluated and the state of the art advanced.

MECHANICS OF ROENTGEN RADIATION

The mechanics of roentgen radiation is essentially a branch of the science of physics, but the application to medical uses is, of course, a specialty of medicine. The physicist, however, may point out certain fundamental principles governing the action of the radiation to aid the physician in applying this tool to his particular purpose.

The radiation emitted by an x-ray tube is of the same character as radio waves, heat and light; the essential difference lies in the wavelength of the radiation. The degree of penetrability of x-rays through opaque material is a function of the wavelength, which, in turn, is a function of the voltage applied across the x-ray tube. In general, the higher the voltage the shorter the wavelength, and the more penetrating the radiation. However, the radiation emitted at a given voltage does not consist of a single wavelength, but rather of a mixture; the peak kilovoltage determines the shortest wavelength, or most penetrating, component of this mixture.

BODY ABSORPTION OF THE BEAM

The longer, less penetrating components of this beam will be absorbed by the first layers of material placed in their path. This first layer may consist of the superficial skin layer of the patient, or it may consist of a metallic filter placed in the beam near the tube. If the skin absorbs these long wavelength rays, then a visible physiological reaction will appear (after an interval of some days), with less total radiation than if metallic filters had removed them before reaching the patient. Such is the case for superficial skin therapy. If a filter is used, the shorter wavelength radiation passing through the filter will not be as readily absorbed by the skin, and a greater total quantity of this filtered radiation may be administered before (after a certain interval) a visible skin reaction will appear. This is the reason for the observed difference in the total dose in r units required to produce an erythema with various qualities of roentgen radiation.

The greater the filtration (up to a certain point) the more nearly will the mixed beam be reduced to a single wavelength (homogeneous radiation), and the more uniform the dosage throughout the depth of the tissues. Similarly, the higher the peak kilovoltage the shorter will be the homogeneous radiation emerging after this optimum filtration. It now becomes evident that it is the physical phenomenon of absorption, in one form or another, which determines the choice of technique for different types of therapy.

In general low voltage, unfiltered radiation is considered more suitable for skin therapy, and in this case the skin absorbs the long wavelength components. High voltages (200 kv.) or supervoltage (above 250 kv.) are usually used for the treatment of deeply situated lesions (deep therapy), and in this case metallic filters are used to eliminate the long wavelength components, thus sparing the skin to a certain extent.

When the beam of radiation is incident upon the tissues of the patient's body, a certain amount of the radiation which penetrates below the surface is scattered by the atoms composing the tissue. By repeated scattering, a part of this scattered radiation finds its way back out through the same skin area exposed to the incident beam from the

x-ray tube. The total dosage to which this area of skin is subjected is then the sum of the incident radiation from the tube and the back-scattered radiation. The amount of scattered radiation is dependent upon the size of the area irradiated, as well as the quality of the radiation. For larger areas the backscatter is greater, and the exposure time required for a certain dosage will be less than for a small area, where the contribution of backscatter to the dose is negligible.

DEPTH DOSAGE

Depth dosage is the relative quantity of the radiation present at the surface which penetrates to a given depth in tissue. Usually the depth dose is expressed in the percentage of skin intensity, which reaches a depth of 10 centimeters, both the surface and depth measurements, in this case, including scatter. In general, the shorter the wavelength of the radiation, the greater the depth dose, although it is also dependent upon the size of the field irradiated.

The distance of the source of radiation from the skin surface is another important factor in determining the choice of therapy technique, because the depth dose is also a function of this variable. The greater the source to skin distance the greater the depth dose. The low depth dose associated with surface radium applicators is utilized to limit the radiation effects to the surface layer involved in a skin lesion. For deep therapy, a reasonably long target-skin distance seems desirable for attaining the maximum depth effect for a given skin tolerance.

BACKSCATTER NOTATIONS IN THERAPY REPORTS

Because the amount of scattered radiation measured on the surface varies with the type of instrument used, and the underlying architecture of the anatomical part being irradiated, it seems advisable to report dosage values as measured in air, without backscatter. In any case, it is extremely important to state plainly in therapy reports whether the dosage values do or do not include backscatter. It is evident that gross errors might result from confusion regarding this point, since the amount of backscatter often exceeds 30 per cent of the primary beam. The size of the field irradiated should always be stated, and the total dosage for each area should be specified. The period over which the series of treatments extended is also necessary for a complete description of the technique.

The quality of the radiation should be carefully reported, giving both the kilovoltage and the filter used; the filter data should include both added filter and the inherent filtration of the tube, casing and fittings. The best single value available at present for describing the quality of the mixed beam is the half-value layer of some specified material, usually copper. This is the thickness of the material necessary to reduce the intensity to half its original value. Another term, the effective wavelength, is often used, but, since it is usually determined from half-value layer measurements or the equivalent, it seems best to use the original data.

The phenomenon of scattering is also important from the standpoint of the protection of the operator. Even though the equipment is completely rayproof as far as the primary beam is concerned, the operator is exposed to the radiation scattered from the patient's body, and must be shielded accordingly.

Since the depth dose percentage measured with low voltage radiation is relatively low, and much less than for high voltage roentgen rays, it is impossible, even by prolonged treatment, to obtain adequate irradiation of a deeply situated lesion. By trying to accomplish this end valuable time is lost, during which the course of the disease progresses until it may be too late for proper deep therapy to be of any help.

ACTUAL DOSAGE RECEIVED BY THE TUMOR

The important consideration for therapy is the actual dosage received by the tumor. This may be calculated from depth dose data by adding the radiation received at the locus of the lesion from all the portals of entry used. Multiple ports ("cross-firing") permit a higher tumor dose to be built up than would be possible with one field, due to the limitations of skin tolerance. A safe dose, however, may be given to several skin areas with the beam properly directed, so that the lesion at a depth receives the sum of the radiation from all the ports of entry.

It has been recommended by the Standardization Committee that the therapist maintain a day book for recording all changes in equipment, tubes, calibrations, and other pertinent data. It was also suggested that individual treatment records be initialed by both therapist and technician, as a check for legal purposes, on such factors as filter, target-skin distance and dose administered.

SUMMARY

1. The r unit is a unit of quantity of radiation; dosages in terms of r units have been clinically determined.

2. Calibration of intensities in r units permits exact duplication of successful dosages and a universal basis for comparison.

3. The long wavelength component of radiation is absorbed either by the patient's skin or by a metallic filter. In the latter case the skin is spared to a certain extent and a greater amount of radiation is delivered to a depth before a skin reaction is evoked.

4. Backscatter, varying with the size of the area, contributes to the skin dose, and must be taken into consideration.

5. Dosages should be reported in air, without backscatter, together with the size of the field and the target-skin distance. Quality should be specified by voltage, filter (including inherent filter), and half-value layer in copper.

6. Protection against scattered radiation is necessary for the operator.

7. Tumor dosage may be increased by using several portals of entry, and not exceeding the desired skin dose for any one area.

8. Certain records should be kept for legal protection.

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DISCUSSION

KENNETH S. DAVIS, M.D. (St. Vincent's Hospital, Los Angeles).—Careful consideration of Mr. Pugh's paper brings out the fact that everyone doing x-ray therapy, whether a radiologist or otherwise, should utilize the services of an x-ray physicist to properly calibrate the machine that is being used for therapy. The physicist should be expected to accurately measure the output of the x-ray machine in r units, so that the dosage reported will be in such terms as can be understood by anyone doing x-ray therapy. The physician doing such therapy should bear in mind that the *allowable* dosage of x-rays depends on a number of factors:

1. The kilovoltage used.
2. The kind and the amount of the filter.
3. The size of the treated area.
4. The distance from the target of the tube to the skin of the patient.

He should also realize that there is a variability in the output of an x-ray machine from day to day, and that changes of any part of the apparatus, especially the x-ray tube, will influence the output of x-rays by a matter of as much as 5 to 10 per cent, all other factors remaining the same. For these reasons the periodic calibration of the x-ray therapy machine is essential.

At this point the duties of the physicist cease and those of the physician begin, for the physician must translate this physical knowledge into terms of biologic reaction; *i. e.*, the response of the tumor cells, and the *normal tissue cells surrounding them,* to a given dosage of x-rays correctly measured in terms of r units. Each case presents itself as an individual problem to the x-ray therapist, both as to the methods of therapy employed and the biologic response. The location of the tumor, the type of tumor cell, and many other facts will influence the treatment technique used.

Mr. Pugh states that dosages should be measured and reported in air without taking into consideration the back-scatter. I disagree with him on this point, as I find so much variability in the intensity of the radiation in the differently sized portals that it would seem wise to make this a matter of record. The back-scatter in our laboratory is determined by the use of the victoreen ionization chamber half-buried in a paraffin block, each size of the portals used in our work being calibrated once a month.

However, the r per minute in air is also recorded on our treatment chart for purposes of comparison with the records in other x-ray therapy laboratories.

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JOHN D. LAWSON, M.D. (1306 California State Life Building, Sacramento).—Certainly, the association of the physical and biological facts pertaining to radiotherapy is essential.

Until the relatively recent perfection of physical mensuration of radiation energies, and the adaption of an international unit of measurement, dosage was discussed in indefinite terms of "erythema doses." The variation of an erythema dose between two radiologists might be 50 to 75 per cent. Hence, each radiotherapist was a law unto himself, and comparative studies could not be made.

The point made by the writer, that "there should be no confusion between the biological result and physical measurement," should be stressed. Certainly, the same dosage (in roentgens) of heavily filtered radiation will manifest itself differently from an unfiltered application.

So, too, the various factors of kilovoltage, rate of administration, location of portal, size of portal, and many other factors require the knowledge of biological application on the part of the radiotherapist.

The assistance of the physicist has been great to the radiologist, but his purely physical measurement cannot in any way displace the detailed biological knowledge of the physician who has learned from observation and study the application of these measurements in the treatment of pathological conditions.

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GEORGE STEVENSON SHARP, M. D. (605 Professional Building, Pasadena).—This excellent paper by Mr. Pugh should be studied by every physician who employs radiation in any of its various forms. The basic factors of x-ray and radium therapy have been clearly defined, and a detailed check of the factors, recorded habitually, will promote more scientific treatment.

Knowledge, experience and judgment of radium and x-ray therapy are assumed qualities of a therapist in this specialty. Knowledge of dosages is essential, but the radiologist must know his equipment as any artist must know his instrument. Complete information must be available on the output of his machine. He may obtain this instantly by one of the various dosimeters, or by consulting a physicist at least every two months in order that mechanical or equipment variables may be known.

Knowledge of the r-unit output of a machine is essential for the present-day procedures in radiation. By the multiple divided dosage technique and multiple portals, one may now deliver to a deep-seated growth more radiation than the skin over it will tolerate. There is a fair margin of safety, but not sufficient to permit these heavy dosages without accurate data on the r-unit output and the type of radiation.

The principle of tumor dosage, and lethal or cancercidal dosages, have concentrated thought on the radiation one delivers to the tumor rather than to the skin. Radiation dosages are known for certain types of neoplasms, according to size, depth and degree of invasion, and a therapist is expected to deliver that required amount without permanent damage to the surrounding tissues or the patient. The dosage may be delivered in part by x-radiation and the remainder by intracavitary or interstitial radium, but the summation of radiation by all procedures should be equivalent to the calculated or required amount for that particular growth.

Dosages for such growth destruction cannot always be given, and for such patients the treatment should be considered palliative and primarily symptomatic. Much relief of pain and obstructive symptoms in various parts of the body may be obtained by less severe and palliative measures without untoward radiation effects in the incurable cancer patient.

I agree with Mr. Pugh that the mechanics of roentgen radiation is essentially a branch of the science of physics, but the application to medical therapy is a specialty of medicine and the physician must have this data constantly available to obtain the maximum beneficial effect of irradiation procedures.

HUMAN RABIES IN CALIFORNIA*

WITH DISCUSSION OF DIFFERENTIAL MICROSCOPICAL ANATOMICAL DIAGNOSIS

By J. C. GEIGER, M.D.
AND
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DISCUSSION *by J. L. Pomeroy, M. D., Los Angeles; W. M. Dickie, M.D., San Francisco; Hyman I. Vener, M. D., Los Angeles.*

RABIES is a serious and expensive preventable disease, since the financial losses in cattle and sheep represent a not inconsiderable figure. When rabies appears in a new territory, a few scattered cases are usually followed by a sudden sharp increase in incidence of the disorder. Reaching the maximum rather quickly, the epidemic presents almost an equally sudden decreased incidence. The actual spread through the territory may be slow and steady, and is probably dependent on the number of infected dogs traveling out of the affected areas. In fact, the spread could be anticipated and prevented in contiguous neighborhoods, but the well-known and effective measures of control are gener-

* Symposium on Rabies, Pasteur Society of Central California, March 3, 1938.

ally used in an ineffective and half-hearted manner. Generally, a further handicap presents itself in those unthinking persons who desire to protect the dog and other animals against an alleged transgressor of their animal personal rights. Moreover, opinions are still openly expressed that the disease, rabies, does not exist except in the imagination of some public health officer.

ADVENT OF RABIES IN CALIFORNIA IN 1898

The disease is unique in its specific characteristics: the long incubation period, the short infectivity period with fatal termination, the usual mode of transmission—by bites—and a peculiar tendency to spend itself and become endemic. The type of spread of the disease may be noted as it occurred in California. This state remained uninvaded until 1898. Several years ago, Geiger[1-3] described the outbreak then occurring in California, reporting, in all, 1,897 positive examinations and thirty-six human cases. Evidently, the spread of rabies was continuous and rapid throughout the state. Obviously, the control of rabies in California is by no means a minor public health problem. All the human deaths might have been prevented if proper control measures were established for the animal reservoir, the dog. The presence in any community of this comparatively easily eradicated disease indicates that the community is not doing all that should be done to control the menace of rabies.

REPORT OF CASE

A typical case of human rabies is given below.

D. M., a child, age six, died of rabies on August 16. On July 17, this patient was bitten by a dog proved rabid by microscopical examination. She was badly bitten on both hands, the right hand showing a tear an inch long underneath the thumb, two punctures in the palm of the hand, and two deep punctures on other fingers. There were three punctures on the back of the hand. On the back of the left hand there was a deep cut one-half inch long, an inch tear was on the back of the middle finger, and a similar sized tear on the palm of the hand. There were a number of punctures on the back of the hand, and there was a deep tear on the inside of the ring finger. All the wounds were cauterized with carbolic acid, but over two hours after the biting. Administration of the Pasteur treatment was begun on July 19.

On August 13, four days after the completion of the treatment, the mother telephoned that the child was not well. The mother said the child had come home from school the day before, complaining of pain in the left arm from the fingers to the elbow. The arm was not tender to touch. The scar on one of the fingers was red. The temperature was 99.7, pulse 124; knee-jerks could not be obtained. There was loss of appetite. She could drink water without difficulty, but wanted only a little at a time. She was restless the night before, and cried twice.

When seen on August 14 the temperature was 103, pulse 120. The child readily recognized attendants and seemed normal. The pupils reacted but were dilated, especially the left. When offered water she seemed averse to drinking it. On persistent urging she was able to drink some with a great deal of difficulty, complaining of pain when she tried to swallow.

On August 15 the patient was highly nervous in the morning, afternoon, and night. She was very talkative, looking into space, seeming to see something with a look of terror. She would throw her arms around her mother and cry very sharply, then sob, then quiet down for a few moments. She would call for water, and when offered it she would refuse to take it. There was no real convulsion. The fact that one merely spoke to her would cause a spasm of the face, head and arms, with a jerking of the head. These paroxysms would pass very shortly, and then she would appear rational.

On August 16 the child was in a coma and died about 11:30 p. m. No autopsy was held. From the symptoms of this case there is no doubt that the cause of death was rabies, and it again points out that complete immunity, even with the intensive Pasteur treatment, is not established fast enough in some cases.

HUMAN CASES OF RABIES IN CALIFORNIA

In accordance with the records of California State Department of Public Health since 1899 to 1937, there have been eighty-six cases of human rabies in California, the greatest number occurring in 1923, amounting to eleven cases. Of these cases, thirty had some form of the Pasteur treatment.

Sixty-four had been bitten by dogs; six had had contact with rabid dogs, but were not bitten; one was bitten by a rabid cat; two gave no history of having been bitten or having known contact; twelve gave no information as to the source of the infection; one was bitten by an animal, species not given.

INITIAL CAUTERIZATION WITH FUMING NITRIC ACID

Of the total eighty-six cases, only fourteen had the wound cauterized with fuming nitric acid, and of these fourteen only nine received the Pasteur treatment, the remaining five giving no history of treatment.

PASTEUR TREATMENT

Of the thirty cases receiving the Pasteur treatment, nine had the wound cauterized with nitric acid; seven had no cauterization of any kind; six had no history of cauterization being used; four had wounds treated with iodin; two had wound treated with carbolic acid; one had wound treated with argyrol, and one had wound treated with silver nitrate.

Seventy-six per cent of the cases had an incubation period of sixty days or less, and in no case was the incubation period less than ten days, and in only three cases did it extend longer than six months.

INCIDENCE OF RABIES IN SOUTHERN CALIFORNIA

Of the eighty-six cases of human rabies, fifty-four, or 64 per cent, occurred in Southern California. As far as San Francisco is concerned, the last human case of rabies occurred in 1913, and the last positive dog was found in 1929.

Since in human cases of rabies there may be need of microscopical confirmation other than the demonstration of Negri bodies, there are submitted certain differential anatomical possibilities that may confuse the investigator. This is particularly important if other diseases, such as acute anterior poliomyelitis or encephalitis, may be prevailing in the community.

PATHOLOGY

Turning now to the pathology of rabies, that scourge that has come down through the centuries, written about by Aristotle, Xenophon, Ovid, and Virgil, elaborately treated, so far as attempts to forestall the infection are concerned, by Celsus and Galen, what we might consider as of funda-

mental importance in the pathology of the condition is the discovery by Negri of certain cell inclusions which have since borne his name. Of the various guesses as to what they might represent are the observations of Goodpasture, who considers them local degenerations of neurofibrils, particularly the eosinophilic portion of the inclusion, and that the central, more basophilic portion represents mitochondria. It has long since been demonstrated that the infection belongs in the filterable virus group; that the virus travels by way of the nerve and the affected part is the central nervous system, and there is localized, more particularly so far as the distribution of the Negri bodies is concerned, in the hippocampus, the cerebellum, the medulla, and the upper cord. Occasionally, Negri bodies may be found in the larger cells of the cortex. In regard to the Negri bodies, it has been discovered that they are quite irregular in size as they lie in the cytoplasm of the nerve cells in the street virus, whereas in the passage through animals forming the fixed virus they become smaller and more uniform in size. Associated with this acute infection one would expect and find inflammatory reactions. These consist of accumulations of lymphocytes in the Virchow-Robin spaces, especially through those portions of the brain showing the Negri bodies, forming the collars of cells so prominent not only in affections of the central nervous system due to filterable viruses, but also in many inflammatory conditions caused by well-known organisms. The affected cells sooner or later disintegrate, showing disturbances of the Nissl bodies, some evidence of neuronophagia, but little evidence of alteration in other types of glia. The pia arachnoid, likewise, shows lymphocytic infiltration, it being a question, as in many such conditions, how much of the exudate is due primarily to the effect of the virus on the pia directly and how much it represents an escape in the lymph stream from perivascular collars into the pia, but both methods seem to be functioning.

COMPARISON WITH OTHER DISEASES OF CENTRAL NERVOUS SYSTEM

For purposes of comparison, there might be reviewed other inflammatory conditions of the central nervous system due to specific filterable viruses, as well as making some reference to other forms of encephalitis.

Poliomyelitis.—In connection with poliomyelitis, when the virus reaches the central nervous system, in the great majority of cases the affection is primarily of the lumbar cord, although other portions of the cord may be affected, either primarily or as an extension. The alterations which occur are largely confined to the cells of the gray matter, particularly but not exclusively the anterior horn cells. In the early stages a few polynuclear leukocytes may occur, coincident with intense, rapid degeneration of the cells. This may be accompanied by a certain amount of hemorrhagic exudate; the condition is not due to thrombosis. About such areas of primary disintegration we again meet extensive perivascular infiltration with lymphocytes and a variable number of plasma cells. As degeneration occurs, there is a reaction on the part of the adjacent fibers as well as protoplasmic glia, and the end-result consists of a hole in the tissue, the wall of which is outlined by a layer of frayed-out gliosis. During the process of scarring a few compound granule cells derived from microglia are distinguishable. Associated with the inflammatory reaction there is extensive infiltration of the pia arachnoid, with lymphocytes and plasma cells; while at its greatest intensity near the site of greatest parenchymatous defect, it extends widely even over the cortex. Occasionally, of course, poliomyelitis more particularly affects the upper extremities or even the medullary nuclei with the same destructive activity. As a secondary result, following the destruction of the nerve cells, Wallerian degeneration occurs following the destruction of the axis cylinder; this, of course, leads to the paralyses, neuromuscular type, and to the secondary muscular atrophy and ultimate varying degrees of fibrosis.

Encephalitis.—Again, considering the various forms of encephalitis, in the epidemic type no specific cause has been demonstrated. Whatever be the clinical form, whether it be the lethargic or the more or less manic form, the histopathology and its distribution are essentially the same. Here the affection attacks the brain stem, spreading in either direction from the mid-brain. In the gross anatomy of the condition we have hyperemia, occasional petechial hemorrhages in the cord, brain stem or, in rare instances, widely spread through the substances of the hemispheres. Occasionally, in fact, massive hemorrhage occurs, simulating an apoplexy; but such hemorrhages occur in portions where apoplexy rarely occurs. The brain cells at the site of the more intense affection disintegrate, neuronophagia is observed, but the degree of cellular destruction is much less marked than in poliomyelitis. The inflammatory perivascular infiltration is essentially the same, except for the presence of a fair number of large undifferentiated mononuclear cells with clear cytoplasm, the origin of which is still in dispute. In contrast to poliomyelitis, a certain proportion of the cases of encephalitis go into a chronic stage, characterized by the individuals' going to sleep readily; or they develop a Parkinsonian tremor. This condition anatomically, although it is not explained, shows striking degenerative lesions in the black substance of Sommering, at times extending into the neostriatum and the globus pallidus. Even in these chronic stages of the disease several years after the acute episodes, various degrees of perivascular infiltration are still persistent. Some have interpreted this as being due to persistence of the infection, but it is also true that lymphocytes and plasma cells may persist for long periods at times after clinical recovery from poliomyelitis, and one doubts that the persistence of the cellular exudates bears any association to the virus concerned.

Syphilis.—To make further comparison, reference is made to the protean manifestations of syphilitic infection of the central nervous system. This may give rise to basilar meningitis with more or less perivascular lymphocytic and plasma cell

infiltration about adjacent penetrating vessels. In syphilis the relative number of plasma cells is usually more marked. In the neighborhood of gummata similar alterations are seen, and in the diffuse meningo-encephalitis or general paralysis, again in the presence of the Treponema pallidum, there is a remarkably extensive similar perivascular infiltration, combined with destruction of nerve cells, overgrowth of the fibrous glia, especially in the frontal cortex, the marked overgrowth of microglia from which, among other things, the rod cells are formed, and the occurrence of pigments phagocytized by forms of microglial cells which give the iron reaction. At least, that was the picture of general paralysis before the introduction of malaria and heat treatments. The picture has changed of late years; following such treatments the number of lymphocytes and plasma cells in the perivascular spaces has markedly diminished. There is evidence, however, of cell destruction and gliosis which apparently is stayed at the time of the treatment; so that while there is a damaged brain left, the functional activities are such that the individual may be returned, more or less impaired, to the community. The important point which should be made in the differential diagnosis of these conditions is that there is nothing specific in the character of the inflammatory reaction, and it is necessary to take for examination a number of sections from different portions of the central nervous system and to critically enumerate the findings in representative areas before reaching a diagnosis.

Botulism.—Two affections giving profound disturbances in the functional activity of the central nervous system are those due to the toxin produced by the Clostridium botulinum and that of tetanus. The spores of the first, contained in contaminated food products inadequately sterilized and grown in a somewhat neutral medium, produce an intensely potent toxin which, when consumed, is readily absorbed in the gastro-intestinal tract, leads to more or less gastro-intestinal disturbance, followed by lethargy, profound exhaustion, and, finally, death. The central nervous system shows a condition in which it was formerly considered that certain hyaline thrombi occurring in the vessels were responsible. This appearance of thrombi is by no means specific, but may occur in a number of weak cachectic conditions where death comes on very gradually. There is no inflammatory reaction present and the toxin is considered as affecting more particularly the neuromuscular apparatus of the body.

Tetanus.—The bacillus of tetanus, likewise, as is well known, produces toxin, particularly when introduced in puncture wounds. This toxin is gradually absorbed, probably not passed by way of the nerve fibers, as was formerly supposed; but upon reaching the central nervous system it produces symptoms of marked excitement and other well-known phenomena. Here again the toxin is without effect in producing inflammatory reaction and, although various alterations have been described in the nerve cells, practically nothing that can be considered specific has been discovered.

IN CONCLUSION

Rabies has caused eighty-six deaths in humans in California over a period of years. Only thirty of these received the preventive Pasteur treatment. Likewise, only fourteen had the wounds due to biting of an animal cauterized with fuming nitric acid, a protective procedure regarded as mandatory. Discussion is offered as to the differential microscopic anatomical diagnosis of rabies and other diseases. Finally, health officials must assume the responsibility for the control of rabies in a community, using every measure available, and ignoring the unseemly and sometimes fanatical clamor certain to arise when such control measures are applied to the dog, and perhaps other animals.

101 Grove Street.

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2. Geiger, J. C.: Human Cases of Rabies in California and Their Treatment, Calif. State Jour. Med., 14:230-233.
3. Geiger, J. C.: Supplementary Report of Human Cases of Rabies in California, Calif. State Jour. Med., 14:482-483.

DISCUSSION

J. L. Pomeroy, M. D. (Los Angeles County Health Officer, Los Angeles).—The paper by Doctors Geiger and Rusk concerning rabies is most timely. Few persons indeed realize, as the authors state, that the control of rabies is not a minor public-health problem. On the contrary, it is really one of the most difficult problems in public health—not because of any inherent defect in the machinery of control, but largely because of the psychology of our people. In Southern California particularly, the dog lovers are literally blind to the facts concerning rabies. In fact, many of them can almost be termed "dog worshippers." Since, in more than any other disease, coöperation of the public is the essential keynote of success, the efforts of the health officer are constantly nullified by both open opposition as well as mere indifference. In spite of human sacrifice, and in spite of tremendous suffering among the dogs themselves, I regret to state that a considerable percentage of our population fight more vociferously and effectively for the dog and its assumed rights than they do for many of their own political rights. All of which creates a situation in which the health officer "takes it on the chin" persistently and constantly.

The present outbreak of rabies in Los Angeles County has cost the County Health Department, during the calendar year 1937, nearly $60,000 and two human deaths. Here 789 persons received the Pasteur treatment; 2,204 had their wounds cauterized with fuming nitric acid; and 9,990 dogs' heads were submitted to the laboratory for examination. During the calendar year of 1937 there were 773 positive cases of rabies among dogs, which was the highest of any year in the history of the Department.

Following the action of the State Department of Public Health in invoking the Rabies Prevention Act, we have recently been served with a restraining order, the effect of which is to paralyze the enforcement of the law. This restraining order was based on an act which is not in force in Los Angeles County and has, in my opinion, no relation whatever to the Rabies Prevention Act. At the present writing it has not yet been decided, but it is quite evident that we are fighting not only the disease "rabies," but an emotional condition in the minds of some of our citizens which has demoralized law enforcement. The same forces are behind the new proposed Humane Pound Law which, of course, is aimed at the scientific use of animals in medical research. It is necessary that the population really want public health and preventive medicine before any health officer can give to that public the benefits of scientific knowledge. It would appear most emphatically that a considerable percentage of the people want freedom of dogs and rabies rather than the freedom from rabies and restriction of dogs. Meanwhile what becomes of the desires of the people who are entitled to protection of their children and

themselves from this serious infectious disease? Only time will answer this question.

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W. M. Dickie, M. D. (Director of State Department of Public Health, San Francisco).—As Doctors Geiger and Rusk have stated in this paper, "rabies is a serious and expensive preventable disease." Since 1910, 15,226 cases of rabies in animals have been recorded with the State Department of Public Health, and approximately 95 per cent of these cases have been in dogs. The infection has been recorded also in cats, cows, coyotes, foxes, goats, hogs, horses, monkeys, mules, rabbits, raccoons, rats, sheep, skunks, and squirrels. During this same period rabies infection has been reported from fifty-three of the fifty-eight counties, and it is interesting to note that the following counties have reported cases for twenty or more years out of the twenty-eight years represented by our records:

Madera, Sacramento, Stanislaus	20 years
Alameda, Kern, Kings, San Joaquin	21 years
Riverside	22 years
Tulare	23 years
Los Angeles	24 years
San Bernardino	25 years
Fresno	26 years

We believe, therefore, that while the dog is the chief disseminator of the disease and the source of the majority of the cases in humans, the actual reservoir of infection is in the wild animals, such as coyotes and skunks in the foothill counties.

With reference to rabies in humans, Doctors Geiger and Rusk have presented the data recorded by our department prior to 1938. So far this year three human cases have occurred. Two of the patients were bitten by stray dogs, and the third was infected while treating a sick cow. This third patient put his hand down the cow's throat, attempting to grab the tongue, and the back of his hand was scratched by her teeth. The abrasions were not cauterized, but antirabic treatment was instituted within forty-eight hours. However, symptoms developed twelve days after exposure. This case was of the paralytic type, and the attending physicians were unable to differentiate between rabies and poliomyelitis until the report of rabies was received from the pathologist.

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Hyman I. Vener, M. D. (Los Angeles City Health Department, Los Angeles).—Rabies at the present time is the most serious problem confronting the Departments of Public Health in Los Angeles County. By its insidious spread, the disease has reached such alarming proportions that it was necessary for the California State Board of Health to declare a quarantine. Unfortunately, at the present writing (May 6, 1938), a temporary restraining order is in effect, thereby further complicating the picture.* Such an order permits licensed dogs to wander about the streets unrestrained. Since rabies is no respecter of a dog license, the situation in Los Angeles City and County has indeed become alarming. Doctor Geiger is to be congratulated on the lack of the disease in animals and man in San Francisco. I should like to inquire what measures were instituted?

I have witnessed four cases of human rabies during the past six months. To those who doubt such a clinical entity, I only wish they could see the pitiful sufferings of the victims and the helplessness of medical science. Nature, by its merciful messenger, Death, finally terminates the patient's agony. Once such a picture is witnessed the most cynical critic will pause to reflect the shortcomings of our efforts to deal with the problem of rabies.

Cases of human rabies unquestionably do occur without a definite history of a bite. This can often be explained by the victim having an abrasion which at the time may appear to be insignificant. Nevertheless, the victim has been in intimate contact with the rabid animal, and the virus in the saliva has been inoculated through the broken integument. It must be reiterated that cases of human rabies do occasionally occur, despite first-aid treatment with fuming nitric acid and the subsequent Pasteur treatment. We must be certain that the vaccine used is of sufficient potency to stimulate antibody formation, but an occasional individual will be found who is resistant to this type of stimulus.

Perhaps, following the experimental work of Webster of the Rockefeller Institute for Medical Research with mice, a new and improved vaccine may be prepared which may have many advantages over preparations now available. Possibly, too, in the future, rabies vaccine will be rated according to standards set up by the mouse inoculation tests.

The Pasteur Institute of Paris in 1918 reported the treatment of 1,803 cases, of which three died with rabies, a fatality rate of 0.16 per cent. From 1886-1918, a period of thirty-three years, the Institute treated 39,880 persons, with a total of 140 deaths, a fatality rate of 0.37 per cent.

In contrast, the generally accepted rate among exposed and untreated cases is 15 per cent. Postvaccinal paralysis following the administration of the Pasteur treatment is a minor factor. McKendrick, in the "League of Nations Quarterly," cited the record from the Pasteur Institute: paralysis developing in only nineteen instances in a treated group of 69,541 persons, a rate of 0.027 per cent.

The comparative microscopic pathology is most excellent. However, I feel that animal inoculation should be done as a confirmatory procedure in all cases of human rabies, and when the diagnosis in animals is in doubt. Webster reports the diagnosis by inoculating the suspected material into mice.

I believe that there are, undoubtedly, many abortive cases and apparent healthy carriers among dogs. Consequently, canine rabies is more widespread than we have thought heretofore. As a result, the most practical and simplest suggestion would be the elimination of the stray dog and the confining of the licensed animal. As long as this problem is made a political football, and pressure exerted on the various political factions, by minority groups, then the final word in the control of the disease will not have been said.

* Editor's Note.—The temporary restraining order issued by Superior Judge Emmet H. Wilson of Los Angeles was vacated subsequently. His opinion and decree were printed in the June issue of California and Western Medicine, on page 478.

THE TREATMENT OF SYPHILIS.*

FOREWORD.—The control of syphilis is intimately associated with the treatment of the disease. So effective are antisyphilitic drugs now available that infectiousness can be controlled within a few weeks after treatment is started. If it were possible to bring every infectious case of syphilis under treatment and continue such treatment along modern outlines of therapy, the problem of syphilis control would be practically solved.

From a public health standpoint there are two objectives in the treatment of syphilis. The first is to control the infectiousness of the patient and thereby prevent spread of the infection. The earlier in the course of the disease new cases can be found and brought under treatment the fewer will be the new infections.

The second objective in treatment is the prevention of the development of the late complications in the individual. The chief costs of syphilis arise as a result of the late manifestations of the disease. Most of the pain, suffering, and loss of life occur late in the disease. Any plan of therapy is inadequate if it does not aim at prevention of these late manifestations.

As a result of extensive studies in America and elsewhere, it is now possible to prescribe with some degree of definiteness the minimum requirements

* This is a reprint of Special Bulletin No. 62, issued by the California Department of Public Health. Reprint copies of this bulletin on "The Treatment of Syphilis" may be obtained by physicians upon request. Addresses of State Public Health Board offices appear in each issue, on advertising page 6.

for treatment. The procedure outlined in this bulletin is presented to the medical profession of California with the view that it may be used as a guide in treatment. Some physicians will prefer some modification of the outline, or may prefer other drugs, but it is urged that any modification adopted provide the equivalent of the treatment proposed. There is considerable evidence that mapharsen is equal to or perhaps preferable, in some cases, to neoarsphenamin. Some physicians now use mapharsen with success with patients not tolerating neoarsphenamin. Some prefer maphersen in all cases. It must be appreciated, also, that opinions vary somewhat as to bismuth preparations.

It is realized that there are now and will continue to be advances in therapy. However, it would seem preferable that the trial of new drugs and treatment procedures be restricted to large clinics where controlled series of cases can be studied. The physician and clinics handling few cases would preferably adhere to the tried and proved methods.

It may be recommended that physicians desiring to keep abreast of developments in the venereal-disease field subscribe to the United States Public Health publication entitled, "Venereal Disease Information," issued monthly at a subscription price of fifty cents per year. Address Superintendent of Documents, Washington, D. C.

More extensive discussions on treatment may be found in the following texts:

The Modern Treatment of Syphilis, by J. C. Moore. C. C. Thomas, Springfield, Illinois, 1933.

Modern Clinical Syphilology, by John H. Stokes. W. B. Saunders Company, Philadelphia, 1935.

EARLY SYPHILIS

Early syphilis is that period of acquired syphilis which extends from the time of the appearance of the primary sore through the healing of the secondary lesions. It is during this period that the Treponema pallida multiply sufficiently at the site of the inoculation to form the primary sore, and then disseminate throughout the body to give the symptoms of secondary syphilis. Clinically, we recognize the following stages of early syphilis:

(*a*) Primary stage, seronegative.

(*b*) Primary stage, seropositive.

(*c*) Secondary stage, *i. e.*, the eruptive period, indicating a widespread dissemination of the Treponema pallida.

The early period of syphilis is the golden opportunity of therapy, and offers the greatest chance of cure. From a public health standpoint, the control of early syphilis is most important, as it is in this period that the infection is easily transferred from one individual to another. As high as 86 per cent of patients properly treated in the seronegative primary stage should be cured; 70 per cent in the seropositive primary stage, and 65 per cent in the secondary stage may expect a cure. These percentages represent the statistics compiled by the Coöperative Clinics.[1] Moore[2] states that, with the best available treatment, the chance of cure in seronegative primary syphilis is approximately 100 per cent; in seropositive primary 95 per cent; and in early secondary syphilis 90 to 95 per cent. The term "cure" is used advisedly, and is defined as a complete eradication of all signs and symptoms of the disease with nontransmission of the infection over the period of a lifetime.

Treatment in the early period of syphilis must be continuous, and carried over a long period of time if best results are to be obtained. It is essential that the patient be impressed with this fact, as inadequate therapy may be harmful to the individual. Treatment in this period of syphilis lends itself to standardization, and the plan adopted should be rigidly followed as to dosage of drug and the time interval of the injections. By continuous therapy is meant the uninterrupted administration of remedies until the end of treatment.

Seronegative primary syphilis should be treated for at least one and one-half years; seropositive primary and secondary syphilis should be treated for two years or more.

SEROLOGIC CONTROL

The blood Wassermann and Kahn tests may be done at the conclusion of each course of bismuth salicylate, or they may be done at the conclusion of the required amount of treatment for the given patient. This latter method is called the bloc type of treatment, and has a tendency to encourage the patient to complete the course of therapy prescribed, and further make him less "Wassermann-conscious."

At the conclusion of treatment the blood Wassermann and Kahn tests should be done at the six-week intervals for two examinations. If found consistently negative, they should be done at three-month intervals for the first year, six-month intervals for the second year, and then one year later. The spinal fluid should be examined within three months after treatment is discontinued. If the patient is found to be physically free of any signs of syphilis, and serologically negative during this period of observation, he may be considered "cured."

In the event that the blood serologic tests remain positive after the required amount of therapy has been received, the patient should be treated for an additional year. Treatment may then be discontinued, and if the blood serology is still positive the patient placed under observation indefinitely. If the spinal fluid is positive after treatment has been concluded, special methods of therapy should be instituted.

Clinical relapse is usually the result of inadequate therapy in the early period of syphilis. It occurs in about 10 per cent of inadequately treated patients, while in the adequately treated group it is a rarity.

Neurorecurrence, or neurorelapse, requires special mention. This condition is an overwhelming invasion of the central nervous system by Treponema pallida, with the sudden development of an acute syphilitic meningitis, or the occurrence

1 Stokes, J. H., Cole, H. N., Moore, J. E., O'Leary, P. A., Wile, U. J., Clark, T., Parran, T., and Usilton, L. J.: (b) Section II. Results of Treatment in Early Syphilis, Ven. Dis. M. J., 13:207, 1932.

2 Moore, J. E.: The Modern Treatment of Syphilis. Charles C. Thomas, Baltimore, 1933.

of a cerebrovascular accident such as hemiplegia, a monoplegia or a paraplegia, or various cranial nerve palsies. For this condition, satisfactory results may be obtained by employing the following regimen. The patient should be rapidly mercurialized with a course of twenty intramuscular injections of mercury succinimid, grains one-quarter, each given three times weekly. This should be followed by a course of eight injections of neoarsphenamin, 0.45 gram to 0.6 gram. The spinal fluid should show at this time a marked reduction in the cell count and a general improvement in the other spinal-fluid findings. Treatment should then be continued as indicated in Table 1. Other forms of relapse may be treated as indicated.

Table 1.—*Plan of Treatment for Early Syphilis**

Day	Neoarsphenamin Intravenously	Bismuth Salicylate Intramuscularly	
1	0.45 gm.		
5	0.45 gm.		
10	0.45 gm.		
Week			
3	0.6 gm.		
4	0.6 gm.	0.2 gm.	
5-7	0.6 gm.	0.2 gm.	
8-11		0.2 gm.	
12-17	0.6 gm.		
18-19	0.6 gm.	0.2 gm.	
20-25		0.2 gm.	
26-33	0.6 gm.		
34-41		0.2 gm.	
42-47	0.6 gm.		
48-57		0.2 gm.	
58-63	0.6 gm.		
64-75		0.2 gm.	End of treatment of seronegative primary stage.
76-81	0.6 gm.		
82-93		0.2 gm.	
94-99	0.6 gm.		
100-104		0.2 gm.	End of treatment of seropositive and secondary stages.

* Unless otherwise indicated, injections of these drugs are given once each week.

LATENT SYPHILIS

This phase of syphilis is the period in which all signs and symptoms of the disease have disappeared, and is diagnosed by the presence of positive serum tests or by a very definite history of the infection with inadequate therapy. It may be further divided into early latency—that is, within four years of the onset of the infection; and late latency, more than four years after the initial infection.

The purpose of treatment in latent syphilis is to "cure" the patient or to prevent late complications of the disease. It is obviously poor judgment to treat a patient of advanced age because he has a positive blood Wassermann reaction if there are no clinical evidences of the disease. On the other hand, it is very much worth while to treat patients in the latent stage of syphilis who have a reasonable length of life before them.

Plan of Treatment for Latent Syphilis.—In latent syphilis, treatment should be continuous for a year and a half, provided the drugs are tolerated well. After this time rest periods of six weeks may be given. The total length of treatment should be two to three years. Three years should be considered the endpoint of treatment, whether the blood serologic tests are positive or negative. (See Table 2.) A patient with a positive spinal fluid is not in the stage of latency, and should be treated as outlined for syphilis of the central nervous system.

At the conclusion of treatment, patients in the late latent stage of syphilis should be kept under observation for the rest of their lives if possible. In the event that the blood Wassermann and Kahn reactions have reversed to negative as a result of treatment, the patient should be seen yearly to check on the serum and for physical examination. It is advisable to examine the spinal fluid in this group of patients every three to five years.

Patients in the early latent stage of syphilis should be observed for three years after conclusion of treatment, and if clinically free of signs of syphilis, and serologically negative, should be regarded as "cured."

LATE SYPHILIS

Late syphilis is that period of the disease which is characterized by the development of signs and symptoms due to the formation of gummas in the various tissues. Any organ or tissue of the body may be affected by this process. This stage of syphilis may appear within a few months of the initial lesion, or, as is the rule, several years later. It is impossible to outline a plan of treatment which would be applicable to the entire group of patients with late syphilis. In general, the plan outlined for latent syphilis would be suitable for patients who present only evidences of late syphilis of the skin and mucous membranes of the mouth, anus and genitalia, of the bony skeleton, the skeleton musculature and subcutaneous tissues. However, where the cardiovascular system, the nervous system, the abdominal viscera, and special organs (such as the eye) are involved, the plan of treatment must be changed to meet these situations.

NEUROSYPHILIS

Involvement of the central nervous system is probably the most frequent and most important complication of late syphilis. It is found in about 25 per cent of all patients in this stage of the disease. The introduction of tryparsamid in 1917 by Heidelberger, and fever therapy by von Juaregg in 1919, have been outstanding contributions to the treatment of all forms of resistant syphilis of the central nervous system. They are, however, of particular value in the treatment of the parenchymatous forms of neurosyphilis, such as paresis, taboparesis, and tabes dorsalis.

Classification of Neurosyphilis. — Late neurosyphilis may be classified as follows:

(*a*) Asymptomatic neurosyphilis; that form in which the only evidence of neurosyphilis is the presence of a positive spinal fluid. This may be compared with the latent type of systemic syphilis.

(*b*) Meningeal and meningovascular neurosyphilis.

(*c*) Parenchymatous neurosyphilis; that is, general paresis, taboparesis, and tabes dorsalis.

TABLE 2.—*Plan of Treatment for Latent Syphilis*

Week	Bismuth Salicylate Intramuscularly Weekly	Mercury Salicylate Intramuscularly Weekly	Neoarsphenamin Intravenously Weekly	Potassium Iodid (Saturated Solution) By Mouth
1-12	0.2 gm.			1 cc., t.i.d.p.c.
13			0.45 gm.	
14-18			0.6 gm.	
19-30	0.2 gm.			1 cc., t.i.d.p.c.
31-35			0.6 gm.	
36-47	0.2 gm.			
48-53			0.6 gm.	
54-65				
66-71			0.6 gm.	
72-77				
		REST		
78-83	Check blood and spinal fluid. If blood is positive and spinal fluid is negative, continue as follows:			
84-95		0.1 gm.		1 cc., t.i.d.p.c.
96-101			0.6 gm.	
		REST		
102-107	Check blood. If Wassermann or Kahn are positive, continue treatment.			
108-119	0.2 gm.			
120-125			0.6 gm.	
		REST		
126-131	Check blood. If Wassermann or Kahn are positive, continue treatment.			
132-143	0.2 gm.			
144-150			0.6 gm.	
151-162	0.2 gm.			

This marks the end of treatment for latent syphilis, whether the blood Wassermann or Kahn reactions are positive or negative. If the spinal fluid is positive, the case should be regarded as asymptomatic neurosyphilis.

As these various types of neurosyphilis do not lend themselves to one plan of treatment, an outline of therapy for asymptomatic neurosyphilis is presented. Special indications in the other forms of neurosyphilis will be pointed out later.

GENERAL PARESIS

In general paresis with clinical evidence of mental deterioration, tryparsamid therapy should be instituted at once. If the mental deterioration progresses unchecked by this treatment, or if deterioration is marked, pyrotherapy or artificial-fever therapy should be instituted simultaneously with tryparsamid therapy. The course of pyrotherapy may be repeated within six months or one year, if deemed necessary. Tryparsamid may be given in two- to three-gram dosage intravenously for a series of fifteen to twenty-five injections. This drug has earned well-deserved recognition as the most effective remedy in the treatment of neurosyphilis. It is tolerated very well by the patient. The most important toxic effect is upon the optic nerve. Blindness has been reported after its use. This should not deter one from employing this drug, as optic complications of a serious nature are very unusual and can be prevented in a large measure by careful examination of the fundi and visual fields before treatment is begun, and by checking the eye-grounds at frequent intervals. Subjective symptoms of visual disturbances precede objective changes, and by discontinuing the drug serious harm can be prevented. Visual disturbances following tryparsamid therapy usually occur within the first five to ten injections of the drug.

Tryparsamid courses should be alternated with courses of bismuth salicylate, as shown in Table 3.

PYROTHERAPY

The introduction of artificial fever for the treatment of general paresis and other forms of resistant neurosyphilis has changed the outlook for many of these patients from one of complete hopelessness to that in which an arrest of their disease may be expected.

Malaria therapy, as introduced by Wagner von Juaregg, has been dramatic in its effects upon general paresis. During recent years other methods of producing artificial fever have been introduced. As the therapeutic effects are comparable where

TABLE 3.—*Plan of Treatment for Asymptomatic Neurosyphilis*

Week	Tryparsamid Intravenously Weekly	Neoarsphenamin Intravenously Weekly	Bismuth Salicylate Intramuscularly Weekly	Potassium Iodid (Saturated Solution By Mouth
1-11			0.2 gm.	1 cc., t.i.d.p.c.
12		0.45 gm.		
13-18		0.6 gm.		
19-24			0.2 gm.	1 cc., t.i.d.p.c.
25	1.0 gm.			
26-49	2.0 gm.			
50-57			0.2 gm.	
	Check spinal fluid. If positive or negative, continue treatment.			
58-72	2.0 gm.			
73-80			0.2 gm.	
81-95	2.0 gm.			
96-103			0.2 gm.	
	Check spinal fluid. If negative and previous test was negative, discontinue treatment. If negative and previous test was positive, continue treatment.			
104-119	2.0 gm.			
120-127			0.2 gm.	
128-142	2.0 gm.			
143-150			0.2 gm.	

If spinal fluid remains consistently positive, ten pyrotherapy treatments, consisting of fifty hours of fever over 104 degrees Fahrenheit (40 degrees Centigrade), should be given simultaneously from week 104 to week 113. Many workers are recommending 2.0 and 3.0 gm. respectively instead of 1.0 and 2.0 gm.

temperatures of 104 to 106 degrees Fahrenheit are developed and maintained for several hours, it is generally agreed by most observers that the essential factor in this treatment is the elevation of body temperature rather than any specific effect of the method used.

TABOPARESIS AND TABES DORSALIS

Patients with taboparesis should be treated as those with general paresis.

In tabes dorsalis the plan outlined in Table 3 should be followed. It has been found that pyrotherapy is particularly effective in relieving the severe pains and crises of this type of syphilis, and may be employed where indicated.

LUMBAR PUNCTURE

Examination of the spinal fluid should be done in all patients who have, or have had, syphilis, no matter how early the case had been diagnosed nor how intensively it had been treated. Lumbar puncture may be done for diagnostic purposes or as a guide in therapy.

In early syphilis, lumbar puncture should be done at the conclusion of treatment, as involvement of the central nervous system is usually controlled by the treatment advised for this period.

In latent syphilis, lumbar puncture should be done during the first rest period.

In late syphilis, lumbar puncture should be done after one year of treatment if there are no clinical evidences of neurosyphilis. If such signs are apparent, lumbar puncture should be done before treatment is instituted, and repeated at intervals of six months to a year as a guide to therapy.

COMMENT

Due to lack of space, the toxic reactions which are met with as a result of antisyphilitic therapy with drugs have not been discussed. A plan of treatment for certain types of syphilis, such as cardiovascular syphilis, hepatic syphilis, syphilis in pregnancy, etc., has also been omitted. More extensive treatises on the subject will have to be consulted for discussion of these problems.

The success of a plan of treatment for a given case of syphilis will depend on the skillful use of the drugs advised, and rigid adherence to the plan adopted. Every precaution should be taken to make the treatment "smooth"—that is, without serious reactions. Irregular treatment, whether due to a lack of coöperation on the part of the patient or as a result of toxic reactions, is always unsatisfactory.

In early syphilis the intensive use of the arsphenamins is essential, as these drugs are highly treponemicidal. Bismuth and mercury, the resistance-building drugs, are less important, but nevertheless must be used in conjunction with the arsenicals. In this stage of the disease, particularly previous to the appearance of the secondary eruption, a cure is attempted before the patient has had an opportunity to develop his own resistance mechanism to its highest degree against the infection. Therefore, inadequate therapy leaves the patient helpless against invasion by the Treponema pallidum. Thus accounts for the frequency of

clinical relapse in those patients who have had only a few injections of neoarsphenamin and no other treatment.

In latent and late syphilis the resistance mechanism of the patient is developed to a high degree, and treatment is altered accordingly. Therapy is begun with a long course of bismuth, combined with potassium iodid by mouth. This accomplishes a gradual therapeutic effect without disturbing too abruptly the relationship between the host and the parasites. Here the arsphenamins are less important, and are given in short courses between those of the heavy metals.

Invasion of the various organs of the body occurs during the early period of syphilis when the Treponema pallidum is disseminated. Therefore, treatment should be as early as possible. The final therapeutic effect will depend upon the amount of destruction produced by the disease before therapy was instituted.

Every effort should be made to assure *continuous* treatment for the required time. In accepting a case of syphilis for treatment, a physician assumes an obligation not only to the patient but to the community as well. If inadequately treated, such a patient may become a menace to others as a result of infectious relapse, or, years later, may become a public charge as a result of crippling complications. Any outline of therapy must include a consideration of the problem of how the cost is to be met and continuous treatment assured. If the patient, because of economic difficulties, is unable to continue treatment under private care, provisions should be made for clinic attendance. On the other hand, any clinic patient who becomes able to pay for private care should be returned to his physician. A report, which should include a brief history, laboratory findings, and treatments, should be given the patient whenever transfers are made from physician to clinic, or *vice versa,* or from clinic to clinic.

SULFANILAMID: ITS USE IN UPPER GENITAL TRACT INFECTIONS IN THE FEMALE*

By R. E. Gillett, M. D.
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Discussion *by H. N. Shaw, M. D., Los Angeles.*

INTRODUCTION.—Much information is accumulating in the medical literature concerning the treatment of streptococcic and Neisserian infections with sulfanilamid. In spite of the prominent rôle that this drug is now playing in the treatment of these infections, very little clinical work has been published indicating the therapeutic value of sulfanilamid in pelvic inflammatory disease. The scope of this paper is to present the results of such therapy in fifty cases of pelvic inflammatory disease treated on the Stanford Gynecological service, at the San Francisco Hospital, since July 1 of last year. Consideration is limited to inflammatory lesions of the upper portion of the female genital tract; primarily, salpingo-oöphoritis and parametritis. No attempt is made to determine the value of sulfanilamid in uncomplicated lower genital tract infections, as such cases are relatively scarce in the San Francisco Hospital. Only those patients having initial or recurrent acute salpingo-oöphoritis or parametritis are included in this series, because nonacute cases present no criteria suitable for therapeutic evaluation.

DOSAGE

Marshall and others have recently shown that sulfanilamid is absorbed almost completely from the gastro-intestinal tract within four hours, and that the concentration in the blood does not mount more quickly or obtain a higher level with subcutaneous than with oral administration. These investigators have shown that the concentration of sulfanilamid in the blood must attain a value approximating 10 milligrams per cent before any definite therapeutic benefit occurs. Moreover, these investigators recommend large initial doses, so that the blood concentration will reach the required level as quickly as possible.

In accordance with these principles, the scheme of dosage, as set forth by Long and Bliss, was adopted. Such a program provides four doses of sulfanilamid daily, totaling 80 grains a day for the first two days, 60 grains a day for the next three days, 40 grains a day for the following two days, and then 20 grains a day until discontinued. A few patients were given either 30 or 100 grains daily in an attempt to evaluate the effects of the drug in both small and large doses.

None of the patients constituting this series received other forms of therapy. Douches were prohibited. All patients were confined to bed, and were given fluids *ad lib* and regular diets as far as tolerated. Codein, aspirin, and sedatives were employed to relieve pain.

RESULTS

The patients in this series have been divided into three groups and the results with sulfanilamid in each group discussed separately. Such grouping differentiates those cases having initial acute salpingo-oöphoritis from those cases with recurrent acute salpingo-oöphoritis. Acute parametritis is considered as the third entity. The clinical therapeutic value of a new drug may be unconsciously colored by that variable factor, personal interpretation. We have sought to reduce this element of error by establishing the following criteria for a clinical comparison: (1) effect of sulfanilamid upon the size of adnexal inflammatory masses, (2) the length of treatment required before the patient becomes afebrile, (3) length of treatment required to render the patient free of pain, (4) the amount of therapy required before pelvic tenderness disappears, and (5) the effect upon cervical discharge.

Control cases were not done, because we felt that the results with other types of therapy had been already amply exploited; furthermore, we deemed the selection of exactly similar cases to be an impossi-

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bility, and that comparison made from such a small series would undoubtedly lead to false conclusions.

INITIAL ACUTE SALPINGO-OÖPHORITIS

These cases numbered nineteen, in sixteen of which the patients had palpable adnexal masses. The three cases without adnexal masses all represented very early stages in the attack. Two of these three had cervical smears positive for gonococci. All three patients, when given sulfanilamid according to the 80–80–60 plan, were completely symptom free and afebrile within four days. Pelvic examination at that time showed very little, if any adnexal tenderness, although originally the adnexal regions had been extremely tender. Negative smears were obtained in one case after the administration of 230 grains, and in the other case after 350 grains of sulfanilamid. With only one week in the hospital, representing 420 grains of the drug, these patients were sent home to follow their customary daily routine work. All three were still symptom free and afebrile when reëxamined in the follow-up clinic one month later. At that time one of the patients had very slight adnexal tenderness without any definite induration or thickening. The other two patients had entirely normal pelvic organs, as far as palpation was concerned. Each of the three had slight mucoid cervical discharges containing a few pus cells, but still free of gonococci.

Of the sixteen patients with palpable adnexal masses, five showed improvement, six no change, and five actual enlargement of the inflammatory masses while receiving sulfanilamid. All but four of these patients were afebrile and symptom free within seven days, although adnexal tenderness persisted several weeks or more. Two of the patients that did not respond well to treatment had very large tubo-ovarian inflammatory masses extending well above the level of the symphysis. Incidentally, these two patients received 30 grains of sulfanilamid daily, whereas the other cases received 80–80–60 dosages. The other two patients failing to respond to therapy presented small adnexal masses, which became progressively larger while receiving the drug. Very little improvement occurred in either the amount or the nature of the cervical discharges. Only two patients in the group had positive gonococcal smears, and in both cases these became negative after 420 grains of sulfanilamid.

RECURRENT ACUTE SALPINGO-OÖPHORITIS

Some twenty-five out of the fifty patients in this series had recurrent acute salpingo-oöphoritis. Five of these had but a slight adnexal thickening, eight had large masses, and twelve had small adnexal masses.

All but one of the five with slight adnexal thickening showed definite improvement under sulfanilamid therapy. These patients became afebrile in five days and sympton free within ten days. Adnexal tenderness disappeared within two weeks, but in the majority of cases induration and thickening persisted in the adnexa for at least three weeks or more. Only one patient had positive cervical smears, and these became negative after 460 grains of sulfanilamid. The one patient showing no clinical improvement can be discarded, as this patient was able to tolerate but very small quantities of the drug.

The second group of eight patients having large inflammatory masses showed but little improvement after sulfanilamid therapy. The masses in one patient showed a decrease in size, in two patients no change, and in five patients an actual increase in size. All the patients in this group were afebrile in ten days, and symptom free in fourteen days. In spite of the initial improvement, in every one of these patients there were subsequently developed occasional mild bouts of lower abdominal pain, accompanied by low-grade fever. Adnexal tenderness was quite variable, but persisted to some degree in practically all of the patients for at least three weeks. Every one of the patients came to operation; consequently, any additional follow-up work was impossible. Laparotomy was performed partly because of failure to respond to conservative measures prior to the present acute episode and partly because of economic reasons. All but two of the patients in this group received from 500 to 800 grains of sulfanilamid, according to the 80–80–60 scheme. The two patients mentioned received 100 grains a day, until over 1,200 grains had been consumed. In spite of this large dosage, both of these patients had enlarged inflammatory masses on completion of therapy.

Twelve patients of recurrent acute salpingo-oöphoritis had small adnexal masses. Under sulfanilamid therapy, these masses decreased in size in five patients, and remained unchanged in the other seven patients. All of these patients were afebrile in eight days, representing from 300 to 440 grains of the drug. Pain disappeared within twelve days in all but one patient. Four of these patients had recurrent mild bouts of lower abdominal pain and fever, following the initial improvement. Adnexal tenderness was but slight after two weeks therapy in seven of the patients. The other five had considerable tenderness for at least one month. The total individual dosage in this group varied from 440 to 700 grains. Two of the patients with improved masses, and four of the patients with unimproved masses, received the drug in 30 grain daily amounts. The 80–80–60 dosage was used in the rest of the group. No definite change was noted in the cervical discharges. None of the patients had positive smears.

CERVICITIS

In contrast to the excellent results obtained with sulfanilamid in the treatment of acute Neisserian cervicitis, we have been unable to duplicate such results with this drug in the treatment of chronic cervicitis. Sulfanilamid therapy in chronic cervicitis has not only failed to reduce the amount of discharge, but it also has failed to render these discharges less purulent. In our series of cases, we did not find a single patient with chronic cervicitis who had positive gonococcal smears. Microscopic studies of the cervix before and after treatment have not shown any obvious histo-pathological improvement in practically all of the cases of chronic cervicitis, and in the majority of the cases with acute cervicitis.

ACUTE PARAMETRITIS

Six patients of acute parametritis were treated with sulfanilamid, according to the 80–80–60 plan. Five of these patients became afebrile and symptom free within one week. At this time the previously tender and markedly indurated broad ligaments had become soft and pliable. Tenderness was almost entirely absent. These patients left the hospital in twelve days. No restrictions were placed upon their activities while at home. Reëxamination in the follow-up clinic at one, and at two months failed to show any palpable pelvic pathology. The one patient that failed to respond to therapy had persistent lower abdominal pain and fever, which lasted for six weeks, in spite of large dosages of sulfanilamid totaling over 1,600 grains.

COMPLICATIONS

Anemia occurred in 50 per cent of the patients in this series. The average drop in hemoglobin was 19 per cent Sahli, and the average drop in red blood cells was 1,000,000.

Leucopenia developed in only one patient. The initial white count of 12,000 dropped to 3,400 after 485 grains of sulfanilamid, given according to the 80–80–60 scheme. Toxic symptoms were absent.

Nausea occurred in 40 per cent and vomiting in 20 per cent of the patients. The average quantity of drug producing nausea was found to be in the neighborhood of 340 grains. Administration of sodium bicarbonate with the sulfanilamid tablets helped to reduce nausea in a few cases.

Cyanosis occurred in 35 per cent. If this complication developed it usually appeared early in the course of therapy. The average total dosage causing cyanosis was found to be approximately 200 grains.

Cerebral symptoms, including headache, dizziness, disorientation, etc., were noted in 32 per cent of the patients.

Sulfanilamid in total dosages varying from 60 to 420 grains caused chills and fever in about 1 per cent of patients. Some of these temperatures reached 104 degrees. If a patient once developed chills and fever from the drug, small doses would invariably cause reappearance of the symptoms, even when given some five or six days after the sulfanilamid had been discontinued.

One patient developed dermatitis. The skin lesion was a fine macular rash which was generalized and not limited to the exposed portions of the body. This rash disappeared thirty-six hours after sulfanilamid therapy was discontinued.

CONCLUSIONS

The foregoing data suggest that sulfanilamid therapy in acute salpingo-oöphoritis is more effective during the initial attack than at any other time in the course of the disease. In our series a single week of sulfanilamid treatment produced apparent cures in 100 per cent of the initial patients not having demonstrable inflammatory masses.

Likewise, sulfanilamid appears to have definite therapeutic value in most cases of recurrent acute salpingo-oöphoritis unaccompanied by inflammatory masses. Our results show that 100 per cent of such patients were rendered afebrile and symptom free after ten days therapy; however, adnexal thickening and tenderness persisted for at least three weeks.

The beneficial effects from sulfanilamid therapy, in either initial or recurrent acute salpingo-oöphoritis, were found to be much less striking in those patients having palpable inflammatory masses. Conversely, sulfanilamid was found to produce but little if any improvement in adnexal masses.

Acute gonococcal cervicitis seems to respond excellently to sulfanilamid, but such therapy apparently has little value in chronic cervicitis.

Five out of six cases of acute parametritis were afebrile, and without palpable pathology after the completion of but one week of sulfanilamid therapy. Such evidence speaks for the value of sulfanilamid in the treatment of acute parametritis.

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DISCUSSION

H. N. Shaw, M.D. (901 Pacific Mutual Building, Los Angeles).—Our experience with sulfanilamid has been very similar to that of the author's.

It has given almost miraculous results in cases of acute gonorrheal salpingo-oöphoritis. A case with high fever and frightful pain which, under former methods, would require four to six weeks of bed rest before almost inevitable surgery, is now free from fever and discomfort within two or three days. The majority of these cases escape surgery. In exacerbations of old infections it renders them safe for surgery far sooner than any other method.

Recently, we removed the uterus and both tubes in a case where we expected to find tuberculous salpingitis. Smears made in surgery, and the microscopic sections, showed streptococcus. The patient developed a typical cellulitis in the broad ligaments, but this became soft and pliable in three or four days under sulfanilamid.

It is not a drug to be used without careful supervision. Reports from various clinics of deaths following relatively small doses indicate that some patients have a dangerous idiosyncrasy to sulfanilamid. Under a careful regimen, it has proved an invaluable method in the treatment of pelvic infections.

SULFANILAMID: ITS USE IN THE TREATMENT OF GONORRHEA OF THE LOWER GENITAL TRACT OF THE FEMALE*

By Arnold Manor, M. D.
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Discussion *by Norman H. Williams, M. D., Los Angeles.*

ALTHOUGH for several years European medical journals have called attention to the beneficial effect of sulfanilamid on clinical and experimentally produced infections by the beta hemolytic streptococcus, the drug was not introduced into this country until the latter part of 1936. Since then, however, its use in combating various infectious diseases has rapidly increased, as evidenced by the numerous reports appearing in our medical literature during the past year.

Long and Bliss[1] were the first in this country (January, 1937), to confirm the experimental results of European investigators, who found that

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sulfanilamid produced a very favorable reaction in mice infected with many times the lethal dose of beta hemolytic streptococci.

In 1936, Buttle and his coworkers[2] reported that sulfanilamid had a marked protective action against meningococcic infection in mice, and the following year Proom [3] confirmed their results. Schwentker[4] applied this observation clinically, and reported favorably on the effect of this drug in the treatment of meningococcic meningitis. As a result of this work, and because of the close biologic relationship between the meningococcus and the gonococcus, Long suggested the possibility of its therapeutic application in the treatment of gonorrhea. Dees and Colston,[5] acting upon this suggestion, made a preliminary report in May, 1937, on the use of sulfanilamid in the treatment of this infection in the male. The high percentage of successful results reported by them led us to employ it in the treatment of gonorrhea in the female.

STUDIES BY THE AUTHOR

In the study undertaken by us, we are primarily concerned with the effect of sulfanilamid on gonorrhea involving the cervix, Skene's or Bartholin's glands, and only patients in whom the gonococcus could be positively identified are included. In order to evaluate our results properly, no treatment other than the sulfanilamid was used, except where a particularly profuse and annoying discharge necessitated a cleansing douche. Most of the patients were cared for in our out-patient clinic, although a few were hospitalized because of associated severe pelvic inflammatory disease. At the beginning of treatment a blood Wassermann determination and complete blood count were done on each patient, and the red cell count and hemoglobin determination were checked weekly during the course of therapy. During the period of observation, which was four weeks or longer, alcohol and sex activity were forbidden, but no other restrictions were imposed. Patients reported at the clinic twice weekly for smears, and at each visit symptoms attributable to the drug were carefully recorded.

DOSAGE PROCEDURE

A dosage system similar to that suggested by Colston and Dees was employed by us, as follows: 1.2 grams four times daily for two days, 0.9 gram four times daily for three days, then 0.3 gram four times daily until a total of 30 grams had been given. The time required for this dosage is thirteen days. Later, a group of patients were treated with smaller amounts, using 0.6 gram three times daily until a total of 15 to 30 grams had been given. The time required for the maximum dose at this rate is seventeen days.

CLINICAL MATERIAL FOR THE STUDY

The total number of patients included in our study was thirty-three. Of this number, twenty-three, or 70 per cent, were cured; seven, or 21 per cent, had a relapse; and three, or 9 per cent, failed to respond to treatment. Of the seven whom we thought cured, but who returned with a recurrence or reinfection, five were cured following a subsequent course of treatment, and have remained so, and two were lost track of.

Twelve of the thirty-three patients received small daily doses. In this group, eight, or 67 per cent, were cured; one, or 8 per cent, had a relapse; and three, or 25 per cent, failed to show any improvement.

In the cases considered cured, the smears became negative in from three to ten days after the beginning of treatment, the usual time being three to four days. The one patient who was apparently cured, but who suffered a relapse, was later given larger doses, following which her smears became negative, and have remained so for more than four weeks. One of the three who did not respond to the small doses was cured by the large doses, while the other two failed to be influenced by either.

Twenty-five patients were treated with large daily doses, and of these, sixteen, or 64 per cent. were cured; six, or 24 per cent, had a relapse; and three, or 12 per cent, failed to show any response. The smears of those cured in this group became negative in two to ten days (most often in three to five days), and remained so. In most instances the discharge changed in character and amount from profuse and purulent to scant and mucoid. Relapse occurred in the six patients in from four to eight weeks following the beginning of treatment. Four of these (16 per cent), were cured by a subsequent course of treatment and have remained so, and the other two were not followed. Two of the three patients who showed no response in this group were also not influenced by the smaller dosage.

Evidence of intrapelvic inflammatory disease was noted in twelve (36 per cent), patients. Some improvement, which varied markedly in degree, was observed in the majority of these women. The impression obtained was that the improvement was more marked in patients in whom the inflammatory condition was acute or quite recent than in those in whom it was chronic. In none of the patients did a pelvic inflammatory process develop after the beginning of treatment. The administration of sulfanilamid seemed definitely to check the progress of this disease.

REPORT OF CASES

The patients failing to respond to sulfanilamid treatment presented clinical courses as follows:

Case 1.—A 20-year-old unmarried white woman suffering from gonorrheal cervicitis and subacute pelvic inflammatory disease was given a total of 75 grams over a period of eight weeks. Only an occasional negative smear was obtained, and she did not remain free from demonstrable gonococcus infection longer than two weeks at a time. The drug was well tolerated and there were no significant changes in the blood picture except that the white count, which was elevated at the beginning of treatment because of the inflammatory process, returned to normal when this condition subsided.

Case 2.—A 23-year-old married American Indian with acute gonorrheal cervicitis, skenitis, and bartholinitis, complicated by lues and a two months' pregnancy, was given a course of small doses of sulfanilamid aggregating fifteen grams. The smears remained positive throughout treatment, though the discharge improved. A course of large doses was begun, but the drug was poorly tolerated and the patient discontinued the treatment. Her smears are still

positive, and she is now being treated with local applications and douches.

* * *

CASE 3.—A 22-year-old unmarried white woman with acute gonorrheal skenitis and cervicitis, and a mild pelvic inflammatory process was treated with small doses of sulfanilamid, after which much improvement in symptoms was noted. The smears, however, remained positive. She was then given two courses of the large doses, which were very well tolerated. After the first course the smears were negative for about two weeks, but they again became positive and have remained so in spite of the second course of large doses. The patient is now being treated with local applications and douches.

* * *

CASE 4.—A 23-year-old unmarried white woman with acute gonorrheal cervicitis and skenitis was given small doses of sulfanilamid. Her smears became negative for a short time after treatment, but did not remain so. Following a subsequent course of large doses the smears again became negative and have remained negative for more than four weeks.

COMMENT

No serious reactions were noted in any of the patients. Those receiving the large doses frequently complained of malaise, dizziness, headache, nausea, and occasional vomiting. Initial cyanosis was common, but disappeared quickly when the dose was reduced. Skin rashes did not occur in any instance. The blood picture of the patients treated with small doses showed no appreciable changes, but a definite lowering of 10 per cent or more in hemoglobin content was noted in five patients (20 per cent), who were given the large doses. The greatest drop in hemoglobin was 25 per cent, which occurred fourteen days after treatment was begun.

A comparison of end results in the two groups using different dosages shows no material difference, which suggests that the large doses are not essential in all cases. Of the three failures in the small dosage group, only one was cured by a subsequent course of large doses.

The relatively high incidence of relapses brings up the question of the length of the treatment period. Dees and Colston[6], in their report of December, 1937, suggested a considerable extension of time in order to prevent relapses. Their hypothesis is that all the organisms are not killed in the initial days of treatment, and that after medication is discontinued, the remaining gonococci gradually increase in number until they can again be demonstrated clinically. This suggestion is in keeping with the findings of Long and Bliss in their experiments on mice infected with streptococci.

IN CONCLUSION

Our observations on the use of sulfanilamid in the treatment of gonorrhea in women confirm previous reports of its use in men. The prompt response to the drug, the facts that complications have not occurred and the infection has not progressed, and the apparent low toxicity of sulfanilamid lead us to conclude that this drug is of great value in the treatment of this type of infection.

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DISCUSSION

NORMAN H. WILLIAMS, M.D. (1052 West Sixth Street, Los Angeles).—Sulfanilamid is a two-edged sword—on the one hand there are undesirable reactions, on the other a potency against certain types of infection. As yet the method of its action is uncertain—whether its action incites increased resistance on the part of the body as, for instance, phagocytosis, whether it acts as a germicide, or whether a bacteriostatic agent, seems as yet undetermined. Whatever may be the action, however, the gonococcus is one of the organisms that is affected. This paper by Doctor Manor, as well as the work of others, has definitely shown improvement or cure in the majority of cases suffering from acute gonorrhea. The chronic cases are often improved clinically, but the pathology may remain. This may be no indication that the organisms do not disappear, often chronic adnexal pathology is sterile. The fire of a burning house may be extinguished, but the damage done remains. So few cases of gonorrheal joints and endocarditis treated with sulfanilamid have been reported, it still remains to be discovered to what extent the treatment may influence these conditions.

In more recent years reports have been issued concerning the use of the compliment-fixation test in gonorrheal infection. As the antigen has become more stabilized, the test seems to assume more diagnostic accuracy. Would it not be interesting to continue this excellent type of investigation by treating a series of known positive fixation cases, both acute and chronic, with sulfanilamid, studying particularly the effect of the latter, not only from the clinical standpoint, but especially changes, if any, to the degree of fixation.

THE LURE OF MEDICAL HISTORY†

ROCKEFELLER, OSLER AND WELCH

By EDGAR LORRINGTON GILCREEST, M.D.
San Francisco

IN the death of John D. Rockefeller medicine lost the greatest lay benefactor it has ever had or probably ever will have. During his lifetime he both made and gave away more than any man who ever lived—over half a billion dollars. Up to 1934 the official figures reached the colossal sum of $530,853,632. He early learned that his philanthropies should be made through great channels, each set up to play a definite part in contributing to a planned investigation for an improved civilization. I have computed, from his various donations, that medicine was the recipient, directly or indirectly, of about $450,000,000. Because of these contributions, James Harvey Robinson placed

†A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

Mr. Rockefeller, many years ago, among the seven greatest Americans on the ground that, through his huge donations to medical science, he had accomplished more for the human race than any man on this continent.

Well may we ask who it was who early interested Rockefeller in medicine, and thus stimulated him in making donations to medical science? A great part of the credit and glory for this achievement belongs to Sir William Osler and to Dr. William H. Welch. Through them education "turned the eye of the soul toward the light."

SIR WILLIAM OSLER AND THE ROCKEFELLER GIFTS

The following account concerning Rockefeller's early gift to medicine, as told to me by Sir William himself in 1915, when I was associated with him in England during the early part of the Great War, will prove of great interest at this time.

One day at luncheon someone mentioned what the Rockefeller relief fund for the Belgians had accomplished. Doctor Osler remarked that: "The way in which Mr. Rockefeller first became interested in the Johns Hopkins Hospital was unusual. At dinner one evening in Baltimore, Mr. Gilman, former president of the University of California and at that time president of the Johns Hopkins University, and Mr. Gates, Mr. Rockefeller's right-hand man, were sitting side by side, and Mr. Gates remarked that not long ago he picked up, by chance, a book on medicine by a man named Osler, and looking through it he became so interested in it that he purchased a copy and enjoyed intensely reading the section on infectious diseases. Not long afterward he told Mr. Rockefeller how engrossed he had become in this book and that he wished to present him with a copy, which he did. A few days later, Mr. Rockefeller told Mr. Gates that he was surprised to know that medicine was such a wonderfully progressive science, and to learn what remarkable work that man Osler was doing in Baltimore. Mr. Gilman was naturally interested in Mr. Gates's story, and when he had finished he said: 'Now, Mr. Gates, if you would sit down tomorrow and write to Doctor Osler just what you have told me, I am sure he would feel very gratified.' Accordingly, in a few days I received such a letter from Mr. Gates. I handed it to Mrs. Osler, saying: 'Please put this letter in the safe. There may come a time when it will prove of service.'

"A few years later, that is, February, 1904, when the Baltimore fire destroyed many of the resources of the Johns Hopkins Medical School, I asked Mrs. Osler to look up the letter from Mr. Rockefeller's associate. It was readily found and I wrote immediately to Mr. Gates: 'You are doubtless aware of the awful fire which has visited Baltimore and of the great loss which Hopkins has sustained. Several years ago you wrote me a very interesting and kind letter, and it has occurred to me that probably you could interest Mr. Rockefeller in considering the unfortunate position in which this renowned medical school finds itself at this time.' A few days later I received a telegram, saying: 'Our Mr. Murphy will be with you tomorrow'; and "tomorrow" "our Mr. Murphy" came and spent several days in making an accurate estimate of the Hopkins loss. After Mr. Murphy's departure, several weeks passed, which seemed like months. As we heard nothing, our hopes had waned, when I received a letter from John D., Jr., saying: 'My father has carefully considered your losses, which total $450,000, and he wishes to know whether you would prefer to have a check or securities for the amount of $500,000.' I immediately took my letter of good news around to the treasurer, and Mr. Rockefeller was informed that we should be pleased to receive a check for the $500,000." Little did Osler realize at that time that Rockefeller's contributions to that institution would reach, in the end, $2,200,000.

INFLUENCE OF WILLIAM H. WELCH

What Doctor Osler began his venerable colleague and distinguished associate at Johns Hopkins, Doctor Welch, who was continuously president of the board of directors of the Rockefeller Institute for Medical Research from 1901-1933, carried on to a triumphant culmination in the organization of four great foundations. When he visited San Francisco seven years ago, a few weeks after scientists all over the world celebrated his eightieth birthday, I had an opportunity to discuss these foundations with him.

ROCKEFELLER INSTITUTE FOR MEDICAL RESEARCH

In 1904 the cornerstone for the Rockefeller Institute for Medical Research was laid to which Rockefeller contributed $59,931,891.62. The Institute's achievements include the discovery of serum treatment of spinal meningitis and of pneumonia, cause and manner of infection in infantile paralysis, nature of the virus causing epidemics of influenza, surgery of the blood vessels, discovery of tryparsamid or treatment of African sleeping sickness and general paresis, identification of the virus of yellow fever, development of yellow fever serum and a method of vaccination which virtually has stamped out the scourge and made possible the building of the Panama Canal, and the Carrel-Dakin method of treating wounds, which saved countless lives in the World War.

Soon afterward he contributed the additional great sum of $129,209,167.10 to the General Education Board which was organized for the "promotion of education within the United States without distinction of race, sex, or creed."

ROCKEFELLER FOUNDATION

In 1913 he established the Rockefeller Foundation "to promote the well-being of mankind throughout the world" and to which he gave a still greater sum, $182,851,480.90.

LAURA SPELMAN ROCKEFELLER FOUNDATION

In 1918, in memory of his wife, he founded the Laura Spelman Rockefeller Foundation, which concerned itself with public administration and to which he gave $73,985,313.77. It supported the International Health Board, concerned with the control of hookworm disease in fourteen southern

states in this country and in twenty-two foreign countries; of yellow fever in five South and Central American countries, and of malaria in ten southern states in this country.

One need read only "An American Doctor's Odyssey,' by Dr. Victor Heiser, to be fascinated by the romance and thrill of scientific achievement on a world-wide front, possible only under this Foundation. Partly as a war measure, the Foundation did much to control the spread of tuberculosis in France by campaigns of public education in hygiene and the training of women as health visitors.

ROCKEFELLER CONTRIBUTION TO CALIFORNIA

San Franciscans should ever remember that he did not forget them in their time of need, and donated $100,000 to the San Francisco Earthquake Sufferers' Fund in April, 1906. The University of California has been the recipient also of thousands of dollars of donations from Rockefeller which went to the Institute of Social Sciences, Institute of Child Welfare, and the Institute of Experimental Biology.

FAR-REACHING RESULTS OF ROCKEFELLER'S DONATIONS

One can perceive at a glance that, because of Rockefeller, millions of people all over the world are living who would be dead; millions of others are free of pain and enjoying a state of well-being and happiness because of his far-sightedness, wisdom, and generosity. He gave as no man ever gave before. His theory was to give in such a manner as not to make paupers of those who receive. Before him people groped their way without guide or chart in the ever-widening field of philanthropic endeavor. He, the Original Father of Big Business, organized and planned his donations upon as distinct lines of progress as his other business affairs. His goal was to make wealth of greater use to the present and future generations. His idea was that only by educating people to help themselves, do we strike at the root of many of the evils of the world. Just as he was reputed to have the "finest organizing mind since Napoleon," he was the world's greatest philanthropist and organizer in the science of giving, the greatest creator of charitable and scientific foundations that have contributed immeasurably to human welfare all over the globe. Indeed, if one reflects if his millions had been dissipated, as often occurs, and had not been turned into these great channels for the relief of human suffering all over the world, inestimable would have been the loss to mankind. Thus we see, through their devotion and service to humanity, why and to what extent the world honors and is everlastingly indebted to these three great men—Rockefeller, Osler, and Welch.

With the rapidly changing economic conditions and the drastic laws which are being enacted, it requires no unusual sense of prophecy to see that we are now in a new era. The Government is drawing on these great reservoirs of wealth as never before, to which science, education, and charity have looked for aid. The colossal Rockefeller charities doubtless will never be repeated. Can wealth be concentrated in private hands to society's advantage? This is one of the basic questions which confronts mankind today. In Rockefeller's case the answer is undeniably and emphatically in the affirmative. It is a direct challenge to the clamorous claims of Communism today.

384 Post Street.

CLINICAL NOTES AND CASE REPORTS

ARTIFICIAL INSEMINATION

By Albert T. Goldberg, M.D.
AND
Milton M. Schatz, M.D.
Fresno

Historical Résumé.—For centuries the idea of artificially impregnating animals has been entertained; the Arabians in the fourteenth century, so it was reported, having successfully carried out this procedure in mares. In 1700 the eggs of fishes were artificially fertilized, and in 1780 Spallanzani succeeded in artificially impregnating bitches. In the present day the science of breeding domestic animals and pisciculture by artificial fertilization has a definite place.

John Hunter, in 1776, successfully produced conception in the wife of a man with hypospadias by injecting the husband's semen into the vaginal vault. In 1866, J. Marion Sims reported favorable results from direct intra-uterine insemination.[1]

STERILITY

Sterility, in many instances, is due, not to definite pathological changes in the genital tract of either husband or wife, but rather to the fact that the spermatozoa may not be deposited directly into the cervical canal. Meeker[2] is in entire agreement with the conclusions of Huhner on this point. It is well known that frequently in the ordinarily acid vagina the life of the spermatozoa is very brief. Post-coital examinations show diminished mobility and many dead forms within a few minutes after ejaculation.[2]

Approximately one in every ten marriages is childless. Modern medicine should decrease this percentage; and every known method at our disposal should be employed in cases of couples who wish and are anxious to have children.

TECHNIQUE

A simple procedure, designed to overcome sterility, is that described by Mason[1] and Cohen,[3] which consists of introducing two cubic centimeters of semen into the uterine cavity very slowly, via a uterine cannula placed securely in the cervical canal. The injection should be performed very slowly in order to prevent expulsion of the semen

1 Mason, Lyman W.: Artificial Intra-uterine Insemination, Colorado Med., 26:86-89 (March), 1929.

2 Meaker, Samuel R.: The Place of Artificial Insemination in the Treatment of Sterility, Boston M. & S. J., 191:495-497 (September 11), 1924.

3 Cohen, Joseph: Artificial Insemination: Report of Cases, New Orleans M. & S. J., 85:817-819 (May), 1933.

by uterine contractions; the object being to deposit the semen within the uterine cavity, and not to force the material into the tubes. There are four methods of procuring semen: masturbation; coitus interruptus, using a small jar; natural coitus, followed by aspiration from the vagina, and coitus condomatus.[4]

The following is a report of an interesting case in which we were successful in producing conception by artificial means. In this particular instance the principal reason for the attempt at artificial insemination was the extreme desirability of the couple to have children, and the growing dissension between husband and wife because of this barrenness.

REPORT OF CASE

Husband: Age, 33 years. History negative for gonorrhea, syphilis, and mumps. Has brothers and sisters who have children. Physical examination negative in all essentials. Blood Wassermann negative. Routine urinalysis negative. Smear made after prostatic massage shows no pus cells or any other abnormal findings. Condom specimen, examined within twenty minutes after intercourse, shows large number of spermatozoa, very actively motile, normal in appearance, with approximately 10 per cent nonmotile forms. No pus or bacteria found in this specimen.

Wife: Age, 22 years. Married two years and six months. History negative for gonorrhea and syphilis. Has brothers and sisters who have children. States that since she has been married both she and her husband have been very desirous of having children. No contraceptive measures of any kind used. Menstrual history: onset age 12 years, regular, interval twenty-eight days, duration four to five days, no dysmenorrhea. Has never been pregnant. No history of surgery, pelvic or otherwise. Last menstrual period April 16, 1937. Patient had a B. M. R. test made four months previously because of overweight, with reading of minus 24. Has been taking thyroid, one grain, three times a day. Repeated basal metabolic rate taken three months later showed a reading of minus 6.

Physical examination revealed a moderately obese young, white female 5 feet 6 inches tall and weighing 182½ pounds. Physical examination otherwise of no significance, with the exception of the pelvic examination findings of a second degree retroverted uterus. Vaginal media normally acid (Litmus). Cervical smear negative for bacteria and pus. Blood Wassermann negative. Routine urinalysis negative. Attempts to mechanically correct this malposition were fruitless.

The problem of artificial insemination was discussed, and both husband and wife desired that this procedure be carried out.

The husband was instructed to thoroughly wash his penis with soap and water, and, after the performance of coitus condomatus, to place the condom in an envelope and keep same at body temperature by placing it in his axilla. Examination of the specimen within twenty minutes after intercourse showed it to be normal, as described above.

The patient was placed in the lithotomy position, a bivalve speculum inserted and the area about the cervix cleansed, but not with antiseptic solution, so that no spermatozoa would be devitalized by the latter. Two cubic centimeters of semen were drawn up into a warm sterile syringe and through a sterile uterine cannula was injected very slowly, and with the least amount of pressure, into the cervical canal. The cannula was gently withdrawn and the patient allowed to rest for half an hour. This procedure was carried out on April 26, 1937, ten days after the last menstrual period, and was repeated three days later.

Course.—The following menstrual period, due May 23, 1937, failed to occur, as did the succeeding one. No Ascheim-Zondek test was done; but at the end of a two months' period, on June 6, 1937, definite signs and symptoms of pregnancy were observed. Pelvic measurements were adequate and the patient was given prenatal care, having her blood pressure, weight, and urine examined weekly. The patient gained twenty pounds during her pregnancy, her diet having been closely watched. The prenatal course was uneventful.

On January 24, 1938, she went into spontaneous labor. Diagnosis of R. O. A. was made with F. H. T. of 154, clearly audible in the R. L. Q. After six hours of labor, the cervix had about one centimeter of dilatation, when patient had a sudden hemorrhage of about 200 cubic centimeters of blood, which continued as a slow hemorrhage for about half an hour, during which time the fetal heart tones increased in rapidity and were hardly audible and, therefore, difficult to count. The patient showed very little sign of shock. Diagnosis of partial premature separation of placenta was made, and we performed an immediate, low-cervical cesarean section, and a living male infant weighing 7 pounds 14 ounces was delivered. The patient made an uneventful recovery, with the exception of a slight subcutaneous infection.

1212 Pacific Southwest Building.

[4] Queries and Minor Notes, J. A. M. A., 103:432-433 (August 11), 1934.

INTESTINAL INTUSSUSCEPTION IN AN INFANT: OPERATION, WITH RECOVERY

By A. H. Newton, M.D.
Yreka

INTESTINAL intussusception in infants apparently has no etiological agent. Intussusception occurs most frequently at the ileocecal juncture, where vigorous peristalsis is countered by antiperistalsis in the cecum. This may be a factor as to its genesis. Intussusception of the large intestine may be ileocecal, in which the head of the cecum forms the apex of the invaginated bowel. In the small intestine there may be ileocolic invagination, in which the lower ileum prolapses through the ileocecal valve.

I wish to report a case in an eight months old infant in which there was an ileocecal invagination, the cecum forming the apex of the invaginated bowel which developed into an ileocolic invagination; the ileocecal continuity of the intestinal lumen between the oral and distal segments remained intact until the day preceding surgery. My case report presented the four cardinal symptoms of intussusception: (1) periodic attacks of pain; (2) vomiting; (3) passage of mucus and blood by rectum; and (4) presence of a palpable tumor.

REPORT OF CASE

B. A., aged eight months, male; birth weight, 7½ pounds; weight on admission to the hospital, 21 pounds. Previous illness, none. Present illness: The patient was a normal, healthy, active baby prior to the onset of present illness. The patient was awakened from a sound sleep on Friday, November 27, 1936, with severe crying and evidence of abdominal pain. This was followed by bowel evacuation, and a few hours later vomiting ensued which was persistent with successive bowel movements of blood and mucus. Vomiting and bowel movements persisted through November 28, The patient was brought to the hospital on November 29, and examination revealed the infant to be dehydrated; temperature 105 degrees Fahrenheit, rectal. The abdomen was distended, and a palpable, movable mass was present in the left lower quadrant. The mass was felt by rectal examination as well. A diagnosis of intussusception of the descending colon was made.

The baby was taken to the x-ray department, and under the fluoroscope a barium enema was given from a suspended reservoir can three feet above the table. With

administration of barium enema into the bowel, there appeared to be obstruction at the descending colon, sigmoid junction. The obstruction seemed to be reduced by the bolus of barium, and we were able to get barium up to the hepatic flexure of the transverse colon. The baby was hospitalized, and during the next few days ran a fever of 101 to 102 degrees rectally, and fecal material obtained with enemas. The patient was able to retain, by mouth, two to three ounces of S. M. A. formula, seven feedings a day. He also retained water. His temperature subsided on the sixth day of hospitalization, but he continued to show evidence of partial bowel obstruction by distention, occasional vomiting and very little fecal material, and blood and mucus to be passed with the aid of enemas. On Saturday the patient developed more evidence of bowel obstruction. Repeated enemas were unsuccessful in relieving abdominal gas, the abdomen continued to become more distended, and he was able to retain less formula.

On Monday, December 7, I took the baby to the x-ray, and with a barium enema was only able to get the bolus up into the upper portion of the sigmoid colon. I could feel a definite mass along the descending colon. We felt this to be edema of the bowel, and that the patient's obstruction was due to this. On December 8 the patient developed a complete obstruction, and with his continued straining there appeared at the anus the bowel, which had slipped down through the rectal canal. The mucosa was covered with fibrin, and bled upon touching with the index finger. This was reduced with the gloved finger, and the mass persisted in the left lower quadrant. Examination with the sigmoidoscope was as follows: It was passed up to the lower half of the sigmoid, and edema at this point prevented no further passage.

On the evening of December 8 the baby was taken to surgery, and under ether-inhalation anesthesia low midline incision was made, and on opening the abdomen the small bowel was found distended. There was a bolus of firm material in the sigmoid colon which undoubtedly was intussusception. This bolus was pushed up with the finger through the entire length of the descending colon into the transverse colon and across the abdomen, and was lost at the hepatic flexure due to the extreme distention of the small bowel and the difficulty of preventing a complete eviseration. The cecum was then looked for, and considerable difficulty was found in locating it. The cecum was pulled down and was filled with intussuscepted ileum. The intussuscepted ileum made a mass in the cecum the size of a small orange, which was reduced. There was a great amount of edema of the distal end of the ileum and the cecum. A catheter, size 16, was then placed in the cecum through a cecostomy opening and threaded through the ileocecal valve up into the ileum for a distance of six inches. Purse-string sutures were laid in the cecum at the point of insertion. A stab wound was then made in the right flank and the catheter brought out through this wound along with anchoring silk sutures in order to hold the cecum to the anterior abdominal wall. The abdominal wound was then closed and the anchoring silk sutures were fastened with a button alongside the catheter. The baby was in good condition at the end of the operation, which consumed one and one-half hours. Bright yellow contents of the ileum flowed freely along with gas through the catheter.

The baby made an uneventful recovery. The catheter was removed on the sixth day postoperative. The incisional wound healed by primary union. All wounds were healed by the fourteenth postoperative day. The baby was discharged as cured from the hospital on the fifteenth postoperative day.

COMMENT

Intussusception of the ileum into the cecum, with intussusception of the cecum and ascending colon into the transverse bowel, and further intussusception of the ileum down into the descending colon. The apex of intussusception presenting itself at the anus with complete bowel obstruction. The gut was threaded back through the sigmoid, descending, and transverse colon down through the ascending colon, and reduction of the intussuscepted ileum followed by cecoileostomy with complete recovery.

County Health Office.

PAROTID AVULSION

ALMOST COMPLETE, WITH REPLACEMENT AND RECOVERY

By Bernard E. McGovern, M. D.
San Fernando

BECAUSE of some unusual features, report is made on the following case.

REPORT OF CASE

History.—A white, male child, twenty-two months old, was brought to my office in San Diego on June 5, 1936. His parents stated that he had fallen, face downward, on a freshly manured lawn while running with a drumstick in his mouth; and that he had bled freely from the mouth.

Examination.—There was a depression below the left zygoma in the area normally occupied by the parotid gland, but no evidence of facial nerve injury. There was a deep, curved laceration of the inner aspect of the left cheek, about two and one-half centimeters long, just dorsal to the orifice of Stenson's duct, producing a pedicle to which the duct was attached. Almost the entire left parotid gland was lying on the floor of the mouth, and still attached to Stenson's duct.

Treatment.—Fifteen hundred units of antitetanic serum were given intramuscularly. The patient was taken to the operating rooms of Drs. Ross O. Taylor and Lloyd Myers of San Diego, where he was anesthetized by Doctor Taylor, with the use of an ether-suction machine. Doctor Myers, with my assistance, flushed the wound with sterile, normal saline solution, and replaced the parotid gland through the laceration with forceps. The wound in the masseter and buccinator muscles and mucous membrane was closed with heavy silk sutures; and a silk suture was placed deeply into the gland substance, about three centimeters dorsal to the orifice of Stenson's duct, to form a fistula. A liquid diet was ordered, and the wound was touched every day or two with a two per cent solution of mercurochrome.

Progress.—There was moderate swelling below the left zygoma for several days after replacement. The rectal temperature did not exceed 100.4 degrees Fahrenheit until June 10, 1936, when it rose to 105.4 degrees Fahrenheit. The tonsils were acutely injected and swollen, and the crypts were filled with white plugs. The cervical glands were enlarged on both sides; and there was slight coryza. On June 11, 1936, there was moderate protrusion of the right anterior pillar and soft palate, with intense dysphagia. A diagnosis was made of beginning peritonsilar abscess; and on the next day there was a pus discharge from beneath the right anterior pillar. The temperature and dysphagia were rapidly receding. On June 13, 1936, the patient exhibited the general macular rash of measles. But the wound showed no evidence of infection at any time, and healed without incident.

On June 16, 1936, the stitches were removed, and there were two salivary fistulae at the site of the loop stitch that was put into the gland substance. Saliva was draining from Stenson's duct, as well as the fistulae. The temperature was normal; and the tumefaction had disappeared from below the left zygoma.

On August 16, 1936, saliva was still draining from the sites mentioned, and there was no evidence of salivary cyst in the parotid gland.

COMMENT

Almost complete avulsion of the left parotid occurred when a child fell while running with a drumstick in his mouth. Stenson's duct and the parotid gland were still attached to the cheek by a small pedicle. Recovery took place after replacement and suture. The child developed measles and peritonsilar abscess during convalescence, but no infection of the wound occurred.

1021 Mott Street.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

PREVENTION OF MENTAL DISEASE

I. ETIOLOGY

Glenn Myers, M.D. (1052 West Sixth Street, Los Angeles).—The infant at time of birth is the product of millions of years of influences in the past. Hooten[1] writes: "It has required some sixty millions of years to develop man from a small, long-snouted, quadruped tree dweller, equipped with a simple brain and mobile, five-digited grasping hands and feet. Such an amount of time in the life of the world is as trifling as that sum of dollars to a federal budgetary officer." Only those experiences which have been repeated over and over for long periods of time appear to contribute to heriditary equipment. Casual environmental influences have had little, if any, measurable effect, transmissible through germ plasm. The experiences of a lifetime may be regarded as generally all too transitory to modify inheritable characteristics. This is equally true of organic evolution, such as that of the central nervous system, and of function, such as entailed in what we call Mind. (The mind, of course, is not solely a function of the central nervous system, but has to do with biochemical-endocrine-physiological qualities, with the skin and muscles, and with environment.)

Incident to the preservation of life, our ancestors had much experience with fight and flight, hunger, sexual drives, love, hate and play. An infant comes into the world with instinctual capacities for such expressions, slowly evolved out of the past. They appear to be essentially the same in all persons, compared at least with others of their race and milieu. Factors may possibly be present at birth which predispose to the development of mental disorder. But psychosis, or even lesser mental disorder, in my opinion, is not per se inheritable. Such belief was formerly prevalent, but increased knowledge has proven the contrary in regard to one mental disease after another. Many good psychiatrists continue, for example, to believe that manic-depressive psychosis is transmissible hereditarily, but only a few die-hards still think that *all* mental disorder is so transmissible. The psychiatrist generally concedes that biochemical factors (as also endocrine and physiological factors) may influence mental illness and treats them accordingly, but concentrates upon intensive study of life's experiences in relation to total environment. Such study not only contributes to our store of knowledge, but has practical applications in treatment.

So-called "functional" mental disorder invariably depends in greater or lesser extent, but primarily, upon deviations from normal psychosexual development in the first years of life. (Organic brain disease, or toxic states, may produce solely organic effects, or in addition may precipitate "functional" expressions. The latter, if present, are based on life's experiences, and are not per se organic symptoms.) Environmental experiences gradually mould the personality, and such moulding begins to be apparent soon after birth. Habitual reactions soon become patterned from repeated environmental stimuli. The foundations of personality make-up are well laid by six or eight years of age. The superstructure built upon such foundations is subject to change, but the foundations remain essentially unchanged (unless through psychotherapeutic attack).

Normally, there is an orderly course of psychosexual development with certain well-defined stages. Space permits only brief mention, but the reader may find satisfying elaboration elsewhere.[2] Briefly, it may be said that, at birth, the infant is a somatic structure, the mental component of which consists essentially of an instinctual reservoir, from which instinctual qualities flow under the influence of environmental experiences. Through study of children, and through histories of their childhood given by adults, it has been learned that psychosexual development proceeds normally through stages designated Oral, Anal and Genital. During the nursing period, the Oral zone is invested (cathected) with pleasurable qualities. The first frustrations are also experienced during the nursing period, e. g., through delay or failure in satisfaction of hunger. Weaning may be a traumatic event, if the child expects indefinite continuation of nursing and its termination is abrupt. Next the instinctual stream begins to be cathected in the Anal zone. In the latter part of the Anal stage, the child discovers its genitals, and the Genital zone becomes cathected with qualities flowing from the reservoir of instincts or passed on from the Oral and Anal zones.

The earliest formation of the Psyche comprises awareness of the somatic zones mentioned in the foregoing, and its earliest functions serve to maintain the integrity of the aims of these zones. The child learns something of tenderness and love from the mother. She is the first object-choice toward whom his love is directed. The stream of the instincts becomes invested in the Psyche, a quantum remaining invested in each of the somatic zones. There is still little appreciation by the child of differentiation between mother and himself. Such differentiation will depend upon later deprivations. Restraining influences tend to come particularly from the father, and are directed against the unbridled freedom of the tendencies of the instincts. Gradually the child learns to bring instinctual drives

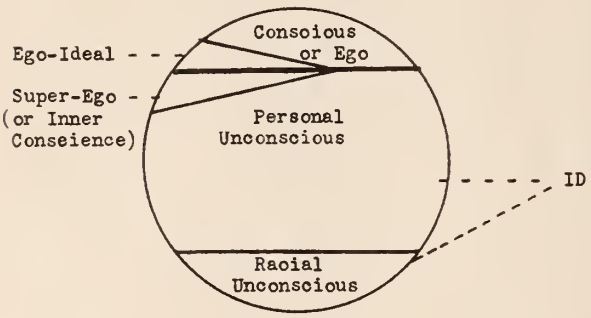
[1] "From Apes, Men and Morons," Earnest A. Hooten, Prof. of Anthropology, Harvard Univ., G. P. Putnam's Sons, New York, 1937.

[2] "Common Neuroses of Children and Adults," O. S. English, M.D., and G. H. J. Pearson, M.D., W. W. Norton & Co., New York, 1937.

into channels that are acceptable to father and mother. He begins to distinguish between himself and his environment. He begins to develop a conscience. Conscience depends upon the parental attitudes, the don'ts of the parents, their teaching of good and bad, proper and improper, right and wrong. After a time, the dictates of the conscience become automatic.

All to the foregoing takes place in the first four or five years of life. From a stage of complete self-love (primary narcissism), the child comes to a stage of submerging self-love in favor of consideration of others, this in turn providing satisfying outlets for instinctual drives. He absorbs first the attitudes of his parents, and next the attitudes of his teachers and others who teach socialized habits and attitudes. He reflects the attitudes of those he wishes to emulate, and begins to manifest an approved social attitude. He establishes approved relationships with Reality—the world around him. He establishes the beginnings of ideals and converts powerful instinctual drives into acceptable and approved conduct and activities (sublimation). Through marriage, genitality is socialized. He has gradually become adult.[3]

An explanation of the Structure of the Mind can best be made with the aid of a diagram:



Using a circle to represent the mind as a whole, at birth only the portion designated Racial Unconscious exists. This is the instinctual reservoir, the effects of strivings in the past for preservation of life. It begins at once to give off streams of instinctual energy which go into channels mentioned above. As the infant grows older, he gradually becomes aware of having instinctual forces within himself, but the Racial Unconscious always remains per se unconscious.

Through environmental influences, the circle gradually fills in. Each experience produces a memory impression. Memory impressions are never lost, but we go through a process of forgetting, and they so pass into the Personal Unconscious. The most important factor in such forgetting depends upon the tendency to remember pleasant experiences, and to forget unpleasant and painful ones. Experiences may be had which are so unpleasant and difficult as to be unmeetable. There is then the tendency to thrust the memory impression abruptly out of the Conscious into the Unconscious. This is called "repression." Repressed memory impressions, as long as they remain unconscious, continue in the same unadjusted state, and with the same charge of emotion that was existent at the time of enforced and generally sudden forgetting. Such forces within the Unconscious tend to unrest and disadvantageously influence thinking and acting. They interfere with or prevent full development of personality.

As a result of the various factors which bring forgetting, there remains relatively little to that portion of our diagram designated Conscious, the part of the mind having to do with awareness and ready recall. No matter how well organized the Conscious mind, we are ever influenced by the Unconscious, particularly by its instinctual strivings and repressed content. Consciously we have no knowledge of the content of the Unconscious. The mind has been aptly compared to an iceberg, the relatively small portion above the water corresponding to the Conscious and the bulk under the water corresponding to the Unconscious. We cannot see far beneath the surface of the water; the Conscious cannot comprehend the Unconscious. Furthermore, the potentialities of the Unconscious correspond to those of the iceberg beneath the surface. The Unconscious as a whole is called the ID.

The remaining portion of our diagram shows the Super-Ego and Ego-Ideal. They are essentially one, but the Ego-Ideal is that portion which represents wishes and aspirations that remain conscious, whereas the Super-Ego is that portion which has become automatic and does not depend on conscious thinking. Fundamentally, the Super-Ego is the attitudes of the parents, and it is as if the parents are always with us, within the Unconscious, telling us what to do and what not to do—the inner conscience.

Obviously, the relationship between these parts of the mind is important. Through the Conscious, or Ego, we attempt to make satisfactory adaptations to the world around us, *i. e.*, to Reality. To such end the Ego must guard against instinctual drives and repressed forces from within the Unconscious. The Super-Ego (the internalized parents) reinforces the Ego in adaptations to Reality, but, because fundamental concepts constituting the Super-Ego were derived during the immaturity of childhood, they may be distorted and out of line with reasonable facts. The Super-Ego in consequence may be exceedingly severe on the Ego. The Ego may thus be in a very difficult position in attempting to make satisfactory compromises between forces from the Unconscious, particularly from the Super-Ego, and demands of Reality. Under such forces the Ego may become weakened to the extent that its functions are considerably overpowered, in which event there is loss of contact with Reality, and the consequent state is termed Psychosis. Or the Ego may be weakened to lesser extent, so that contact with Reality is retained, but lesser degrees of mental disorder than Psychosis are released.

There are certain crises in every life, such as at puberty, on leaving school, during a love affair—through disappointment or frustration—on marriage, at the time of bearing or fathering a child, at disappointments in vocational or financial life, at the loss of a loved person, and during the involutional

3 "Syllabus of Psychiatry," Leland E. Hinsie, M.D., State Hospitals Press, Utica, New York, 1933.

period. If psychosexual development has not progressed normally well and mental instability consequently exists, one will tend to become mentally ill, when he encounters such crisis. If psychosexual development has been along sufficiently normal lines, he will meet the difficulties with the best compromises possible, and will remain mentally well.

* * *

II. PROGNOSIS AND TREATMENT

J. M. Neilsen, M.D. (*727* West Seventh Street, Los Angeles).—While in the general consideration of human disease diagnosis and prognosis have been associated, the latter dependent almost entirely on the former, in so-called mental disease prognosis has become intimately associated with treatment. At the same time diagnosis has undergone radical changes, especially from the static to the dynamic, and descriptive terms have become substituted for the old-fashioned static diagnoses. The prognosis and treatment of mental disease, therefore, will be considered together.

Psychotherapeutic Procedures.—Psychotherapeutic procedures are of greatest importance in the psychoneuroses, and are not entirely without function in the psychoses. They consist in assisting the patient with an analysis of his personality and adjustment problems, correction and guidance in the resynthesis, as well as help in every phase and ever-present encouragement and sympathy. The prognosis in a given case depends upon the thoroughness with which this is done, the ability of the patient to coöperate, and the means available.

Analysis.—The greatest dissension in the ranks of psychotherapeutists occurs in the realm of analysis of the personality and adjustment problems. Here we find the well informed and wise family physician listening to the difficulties as presented to him, mulling them over in his mind and rendering a verdict without further formality, yet in many instances obtaining good results. We also find many abbreviations of a formal psychoanalytic procedure, some therapeutists making use of fractions of Freud's method, others using what they claim to be their own, down to the "orthodox" Freudian technique lasting as long as five years or even more.

Much valuable time is wasted in discussions concerning the question of method, as though methods were inanimate things which function equally well regardless of the operator. Sight is lost of the fact that, while a complete psychoanalysis according to the Freudian school, practiced by a physician himself free of bias and complexes, is excellent, such never occurs for lack of the perfect analyst. Freudian analysts who rise to defend the method are often themselves palpably psychoneurotic, and show this by becoming vehement against dissenters. It is far more important to place the patient in the hands of the proper man than to subject him to the proper method, the man being the most important element in execution of the method.

So good a therapeutist as H. Douglas Singer writes in Tice's System of Medicine regarding analysis in cases of psychasthenia that his trouble has been to know where to stop. The analyst may unearth more complexes which have long been successfully sublimated than he can aid the patient in discarding. Psychoanalysis is notoriously of little value in obsessive ruminating states, even when the method is used by the best of men.

Orthodox psychoanalysis as a method is retained in our armamentarium, but as an instrument to be used is rarely recommended. The well informed and well balanced physician who has good judgment usually finds some far shorter method of handling the problem. Much of what Freudians claim is deeply buried in the unconscious is found on analysis to be superficial and easily discovered.

Resynthesis.—After the analysis is complete (or during it) by whatever method this has been reached, comes the all-important item of synthesis. Just as it is far easier to dismember a fine watch than to reassemble the parts, so is it far easier to point out to the patient his errors than to plan for him a course which will be successful. In assembling a watch one knows that it is apt to run if all the parts have places into which they seem to fit, but in reassembling a personality one wishes to omit parts which formerly were there, and replace with new parts of a different character, which are supposed to function better than the old ones. It takes far more wisdom in the resynthesis than in the analysis.

It is therefore clear that in the handling of adjustment problems the prognosis is intimately linked with the factors in the treatment. Prognosis depends not only on the character of the individual who has acquired the disease, how severe the disease has become, and on the method selected by the therapeutist, but far more on the ability of the physician himself. In the best of hands the patients with the psychoneuroses known as neurasthenia, psychasthenia, and hysteria, as well as those with the numerous personality and adjustment problems which are not specifically named, are subject to considerable improvement by the physician. Psychasthenia has a constitutional element in its very nature, and is, therefore, seldom, if ever, eradicated; but the individual affected may be greatly helped. Freeman and Watts have recently attempted to relieve obsessive-ruminative disorders by prefrontal lobotomy, but the success is not yet sufficient to recommend the procedure as routine.

Hysteria is very deeply rooted in a person and difficult to eradicate, but the hysterical episode is easily attacked and usually corrected. Suggestion and hypnosis are of little permanent value even though they startlingly appear to effect a cure. Far more permanent is the correct portraying of the patient to himself, and the removal of the difficulty for which the hysterical manifestation is the substitute.

In the treatment of the depressive phase of manic-depressive psychosis, psychotherapy is of distinct support to the patient and may often prevent suicide. It is doubtful whether the course of the attack is materially shortened, but it is certainly made far more endurable by persistent encouragement. In the manic phase it does little good to talk, as the patient's distractability and flight of ideas make him incapable of receiving advice.

Relative to dementia precox there are still those who believe that psychotherapy is of value. To the writer it is somewhat amusing to see a psychoanalyst attempting to make an intellectual approach to the incontinent deteriorated patient. On the other hand, in the case of the mildly affected individual who is hospitalized only occasionally guidance is certainly of value.

Physico-Chemical Measures.—Among *physical* measures "hydrotherapy"—which in many instances is not hydro (water) therapy at all, the water being merely the physical agent which carries the heat to or from the patient—has much vogue. It is true that an alternate hot-and-cold percussion douche up and down the spine, always ending with cold, is of use in starting a depressed patient on the day's work in the morning, and that a neutral bath (water 95° F. to 98° F.), or a neutral pack is of use in quieting the agitated patient; but the value of the much advertised hydrotherapy has been greatly exaggerated. At the same time that restraint has been relegated to the past by leaders in therapy of the mental diseases sight has been lost of the fact that much of the value of the neutral pack or neutral bath lies in the restraint necessary to keep the patient in it. The other element is the constant temperature maintained about the skin.

Rise of temperature as such is not well accomplished by means of water. When fever therapy is indicated, as in general paresis, immersion in water is not good; hot air or hot blankets or other external application of heat is preferable to the use of water. In mental disease due to syphilis, fever therapy is certainly indicated in selected cases.

Chemical therapy concerns chiefly the use of drugs in the treatment of syphilis in the psychoses. The details of this form of treatment cannot be entered upon here. Suffice it to say that the prognosis of general paresis by tryparsamide therapy, combined with bismuth and the iodides, has been greatly improved. By carefully applied thermotherapy it is probably slightly better still. By a combination of both it is even better.

Sedatives are much used, and probably indispensable in the treatment of the psychoses. In acute mania they are imperative to prevent patients from wearing themselves out. I have administered to a patient in such condition eight doses of H. M. C. No. 1 (containing morphin sulphine gr. ¼ plus hyoscine HBr. gr. 1/100 each) and sodium amytal gr. xxxvi in twenty-four hours, without producing sleep but a peaceful mental state. After four days of this the patient became clear and remained so. This is cited for those to criticize who do not believe in sedation by chemicals. Sedatives are in some localities greatly overused, and it is a good policy to use as little as possible. Certainly the method common two decades ago, by which the attendants poured out the doses of bromide instead of measuring them, is not to be condoned. Moderate sedation for insomnia in cases of agitated depression is indicated, and does much to prevent suicide during the hours of silent agitation in the night, especially in private practice. The habit-forming drugs are to be avoided. Recently it has been discovered that insulin in doses below those producing shock, followed by adequate feeding, has a soothing effect on disturbed patients. Insulin, by this method, is also of value in alcoholic psychoses and in increasing nutrition in the emaciated.

Recent Advances in Treatment of the Psychoses.—Sodium ricinoleate, insulin and metrazol. The recent stir about insulin treatment for dementia precox has so displaced former methods of treatment of that condition that one has nearly lost sight of the former methods which were almost as successful. The use of castor oil administered daily for several months, and then less often for more months, was reported as fairly successful by a Los Angeles physician as early as 1931. Shortly afterward the similar use of sodium ricinoleate was reported from the East as a separate discovery. The two methods are the same, the latter drug being merely the sodium derivative of castor oil. With this method of treatment acute cases of dementia precox would terminate in recovery in about 70 per cent of cases, but *it took one to two years.* Careful feeding with high vitamin diet was also necessary.

Insulin Treatment.—The great advance in the treatment of dementia precox by insulin lies in the shortening of the time from the above mentioned period of one or two years to two months. The treatment is also correspondingly dramatic and dangerous. Like the treatment with sodium ricinoleate, improvement *mentally* is accompanied by simultaneously marked improvement in the *general physical condition* in every case.

The treatment, as outlined by its discoverer, Sakel, consists in the daily (one day a week excepted) injection intramuscularly of a relatively large dose of insulin sufficient to cause coma, from which the physician restores his patient by administration of glucose. The same error concerning this treatment was made as was made in psychoanalysis; it became ritualized and constrained by dogma ostensibly for the purpose of controlling the novice. Much of the original dogma has already been changed. The alteration in dogma after only three years would indicate its prematurity.

The reasons for the impossibility of retaining any ritual or dogma is simply that the reaction of any patient to a dose of insulin depends on a great number of factors. The balance or imbalance of his endocrine system, and the particular way in which his chemical organization is peculiar, his state of nutrition, the tension or relaxation of his nervous tone, the amount of musculature, the amount of glycogen in the muscles and liver, and additional factors still unknown, all contribute to this. A given patient does not only react unlike any other patient, but even unlike his own reaction of the previous day. When one has observed a certain behavior on the part of a given patient for several days, and one concludes that "now that patient is understood," there is certain to be a deviation compelling one to discard all ideas of fixity. For these reasons the following is only a very broad generalization to which there are numerous exceptions.

In general, if the dose given has been adequate, the patient (without breakfast) will begin to perspire in about one to three hours after the administration of the insulin. He will then become drowsy

and later excited, or the excitement will come first. In the excitement there is apt to be a great deal of tossing and twisting with writhing, torsion, moaning, or yelling. After a time myoclonic jerkings appear involving first the mouth area, then the extremities and perhaps the trunk. Following this period of agitation, the patient usually becomes quiet, although the violence may be repeated several times. When quiet does supervene there is a lull which may be ominous.

The apparent peaceful calm may continue until coma becomes profound and respiratory disturbance supervenes, or an epileptiform seizure may suddenly change the entire picture. (The epileptiform seizure may occasionally come very early in the treatment, even before drowsiness.) Or the patient may develop decerebrate rigidity more or less complete. Any of these events calls for immediate termination of the episode.

Termination is by intrastomachic instillation or intravenous injection of glucose. The choice is determined by experience or by urgent necessity. It may be almost impossible to administer intravenous injection because of the writhing or tossing, yet the more violent the reaction, the more urgent is the termination. If there is evidence of pulmonary edema intrastomachic instillation is contraindicated. The patient usually arouses within twenty to thirty minutes after glucose reaches the stomach, sometimes earlier, or within five minutes after intravenous injection. He is then clear mentally and hungry, and asks for his dinner.

The dosage necessary for this reaction lies between ten and five hundred units of insulin given without breakfast in the morning. Only regular insulin can be used; the protamin or zinc insulin is contraindicated. The individual dosage is determined by trial.

Dangers.—The dangers of the insulin treatment are many. In the first place, patients with arteriosclerosis and with any serious organic disease of the heart are bad risks. The adrenalin produced by the body in response to the insulin may raise the blood pressure to dangerous heights, or cause spasm of the coronary arteries. In "perfectly healthy" patients (they are never perfectly healthy, if they have dementia precox, but if there is no organic disease in the usual sense they are perfectly healthy for the treatment), there are still serious dangers. The most common is circulatory collapse. In this condition the veins collapse so that intravenous injection is almost impossible just when it is most urgently needed. It is usually possible to restore the patient with circulatory stimulants, and treatment can be continued the following day.

The most serious danger is pulmonary edema. Minor degrees of this condition are common, but serious cases are frequent enough to make the therapeutist extremely wary at all times. The patient may suddenly cough up as much as a pint of fluid evidently from the lungs as judged by its frothy, acid-free, and blood-tinged nature. Râles are then heard throughout the chest. Severe, even extreme, cyanosis appears, and the patient may be dead in a few minutes. Large doses of intravenous glucose, morphin by hypodermic injection, coramin intravenously and oxygen inhalation may still save the patient. But all must be done very quickly.

Another danger is prolonged coma from which it is impossible to rouse the patient. It has been reported that intravenous injection of vitamin B1 may restore him, but with this the writer has no personal experience. In fatal cases the patient simply remains in coma for some days, and peacefully dies.

Less common, but still to be reckoned with, is pulmonary embolus. This seems to arise in the veins of the arm after intravenous injections. Minor dangers are those incident to epileptiform seizures, such as suffocation or fractures due to the violence.

Metrazol.—The production of epileptiform seizures by the intravenous injection of metrazol has given almost as good results as insulin treatment. It is simpler, but more dangerous to the patient, chiefly because of fractures and dislocations. The treatment consists merely in the injection intravenously every other day to an alkalinized patient enough metrazol to produce a convulsion. The resultant seizure is immediate and is ushered in by a wide yawn which quite often dislocates the jaw. All complications (as all benefit) seem to be the direct result of the seizure.

Prognosis with Insulin or Metrazol.—In the treatment with these measures the prognosis of dementia precox has been entirely altered. Whereas such results could formerly be obtained only after one to two years, they are now available in two months. In old cases (of long standing), or in old patients, the prognosis is not nearly so good. In fact, while in the acute cases in young persons the outlook is for 70 per cent recovery, in the old cases in old persons it falls to 10 per cent or less. However, such was the ultimate figure by the old method also.

In conclusion, one can summarize the difference between the former and the new treatment of mental disorder by saying that symptomatic treatment has given way to the physiological and psychological approach. The patient, instead of the disease, is now treated.

* * *

III. MEDICO-LEGAL PROBLEMS INCIDENT TO THE CONTROL OR COMMITMENT OF THE INSANE

Mervyn H. Hirschfeld, M.D. (450 Sutter Street, San Francisco). — The medical management of a mentally disordered individual is frequently complicated by the patient's refusal to cooperate. When confronted with this difficulty, it is important that the physician realize the limitation which the law places on his authority to act without the consent of the patient.

In those instances where the person is demented, confused or otherwise mentally so incapacitated that he is unable to express his desires, the next of kin or nearest friend may empower the physician to remove the patient to a suitable place for treatment. When the same degree of mental impairment develops while the person is under treatment, it is the right and the duty of the physician to continue to exercise his best judgment in the conduct of the

case, until responsibility has been assumed by those legally authorized to do so.

Tactful handling will dispose of many problems. The assurance with which the physician acts—his poise and his ability to gain the patient's confidence —are important factors in persuading him to accept hospital care and restraint. Hallucinations and delusions are real to the victim, and usually should be accepted with apparent emotional indifference. Any show of anger, excitement, fear or uncertainty must be avoided. Subterfuge in inducing a patient to enter a mental hospital is usually unwise, not only because it may destroy his confidence in the physician, but he may demand his release at any time and the institution is without power to hold him against his will. At times the medical attendant, confident of the moral justification of his act and having the undivided support of the individual's family, may forcibly place a patient in a hospital. The courts, bound by the constitutional guarantee that no individual shall be deprived of his liberty without due process of law, do not authorize such action. Legally, the person remains sane until declared otherwise in a prescribed manner. The physician who assumes such authority exposes himself to the danger of suit on a criminal charge, an action which is not covered by his malpractice insurance. In such cases even if he successfully defends himself, he incurs the expenses of attorney fees and court costs, and may even have to file expensive briefs and other documents in appeals to higher courts. The same hazards are incurred by the institution which detains the person under such conditions.

Violent and maniacal subjects may force one to call for police assistance, the patient being apprehended on an appropriate charge. The magistrate before whom he is brought may order his removal to the detention hospital or such quarters as the county provides, and lunacy proceedings are thus instituted.

In order to secure legal authority to restrain a person who is mentally ill, it is necessary to follow the procedure laid down in the laws of the state in which the action is brought. In California the routine is as follows. When the State hospital care is not desired, suit may be filed in Superior Court of the county to have the person declared incompetent and to have a guardian of his person appointed. The patient must be served with a citation and, if physically and mentally able, he must appear in court. If it is alleged that he is not able to do so, the court appoints two physicians, not previously interested in the case, to examine him. If satisfied, the court signs the order and the patient may be legally detained and treated according to the decision of his guardian.

When State hospital care is requested, one must obtain a warrant for apprehension and examination for alleged insanity. This is procured either from the district attorney's office or from a clerk of the Superior Court. When sworn to before a judge of that jurisdiction, the patient is taken to the designated place of detention where he remains for forty-eight hours under the observation of two physicians appointed by the court. Within twenty-four hours of his arrest he is informed by the judge of the charges, and his legal right to witnesses, attorney, and jury trial. It is only rarely that the patient demands such procedures, but the possibility of this eventuality must be kept in mind when proceedings are contemplated. Lay juries are reluctant to declare a person insane, and unless the mental abnormality is obvious, commitment may be impossible. The situation may be further complicated by the patient's ability to suppress or conceal his delusions for a time, particularly when kept under control by an adept attorney. When the action has been successfully terminated, it is possible to have the patient paroled to a suitable person who may then place him in a private hospital. This method of handling the matter of obtaining guardianship of the person has the advantage of avoiding the expense of the previously described course.

It is unfortunate that those afflicted with mental disease must be subjected to the distressing experiences of any type of incompetency proceeding. Under the law, as it now stands, it is compulsory for those whose circumstances dictate placement in a public mental hospital. In the majority of other cases it can be avoided, and the risk of subsequent legal action on the part of the patient is slight, but must be taken into consideration. A fully recovered patient has insight into his illness and appreciates the necessity of hospitalization, but the paranoid individual who has learned to hide his delusions and has made sufficient adjustment to be released from the institution, is dangerous.

A Further Evaluation of Artificial Pneumothorax in Lobar Pneumonia: Chairman's Address.—Francis G. Blake, New Haven, Connecticut (*Journal of the American Medical Association,* August 13, 1938), says that in previous reports on the treatment of lobar pneumonia with artificial pneumothorax it was pointed out that no evidence of beneficial effect on the duration or outcome of the disease was obtained in late cases of more than seventy-two hours' duration or in earlier cases with pleural adhesions which prevented adequate collapse and immobilization of the involved lung. Thirty additional cases have been treated. Analysis of the results in these additional cases serves to confirm the limitations previously pointed out. Summarizing his observations Blake says that, in all, seventy-two patients with lobar pneumonia have been treated with artificial pneumothorax in an effort to evaluate the therapeutic usefulness of this procedure. It has been found to be of no value (1) in late cases of more than seventy-two hours' duration and (2) in earlier cases with pleural adhesions which interfere with adequate collapse of the lung. These two facts alone would seriously limit its field of possible usefulness, even were it of value in early cases without pleural adhesions, since many patients do not present themselves until late and adhesions are found in approximately 30 to 40 per cent of early cases. A further important limitation is the fact that it has not been found to exert a demonstrable effect on an established bacteremia nor does it necessarily prevent subsequent invasion of the blood by pneumococci. Although the course and outcome in the majority of thirty-three early cases without adhesions would appear, on first analysis, to have been beneficially modified by treatment with artificial pneumothorax, a careful evaluation of other factors which might have been responsible for the apparently good results renders such a conclusion untenable. The author reaches the conclusion that artificial pneumothorax appears to be of value for the relief of pleural pain in selected early cases of lobar pneumonia. It has not been demonstrated that it possesses any curative value in this disease.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

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THIS MONTH'S TOPICS

ASSOCIATION ACTIVITIES

1. *Special Session, House of Delegates, American Medical Association.*
2. *Digest of Minutes, Executive Committee, California Medical Association.*
3. *Meeting of Council, California Medical Association.*
4. *Digest of Minutes, Committee on Postgraduate Activities.*
5. *Committee on Pneumonia Control.*
6. *Committee on Public Relations.*
7. *Medical Society of the State of California.*
8. *Committee on Postgraduate Activities.*
9. *Subcommittee on Pneumonic Control.*
10. *Conference of County Society Secretaries and California Medical Association Officers.*
11. *California Medical Association Annual Session. Hotel Del Monte, May 1 to 4, 1939.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Digest of Meeting, August 27, 1938.*
2. *Report on "California Agricultural Workers' Health and Medical Association."*

SPECIAL SESSION OF HOUSE OF DELEGATES OF THE AMERICAN MEDICAL ASSOCIATION

Below appears copies of correspondence received on Saturday, August 27. Copies were immediately sent to all component county societies and to the California delegates and alternates to the American Medical Association.

* * *

(Copy)

WESTERN UNION

Chicago, Illinois,
August 27, 1938.

California Medical Association,
Dr. George H. Kress, Secretary,
450 Sutter Street,
San Francisco.

The Speaker of the House of Delegates of the American Medical Association has called a special session of the House of Delegates to be held in Chicago September 16, 1938.

Copy of the official call is being forwarded.

Please advise other officers, and members of official bodies of your Association, as well as general membership so far as possible. (Signed) OLIN WEST,
Secretary, American Medical Association.

* * *

(Letter Concerning the Call for an Extra Session)

AMERICAN MEDICAL ASSOCIATION

Chicago, Illinois,
August 27, 1938.

Dr. George H. Kress,
Secretary, California Medical Association,
San Francisco, California.

Dear Doctor Kress:

I am enclosing a copy of the call issued by the Speaker of the House of Delegates for a special session of the House of Delegates to be held in Chicago, September 16, 1938. You are respectfully requested to use available means for informing the members of your state association that this special session of the House of Delegates is to be held.

A copy of the Constitution and By-Laws of the American Medical Association has recently been sent to the secretary of each constituent state and territorial medical association. I respectfully suggest that you examine those sections of the Constitution and By-Laws pertaining to the House of Delegates and to the selection and registration of delegates.

At a meeting held in Chicago it was suggested that the officers of constituent state and territorial medical associations might consider it advisable to have meetings of their councils for the purpose of conferring with delegates who will represent the state associations at the special session of the House of Delegates of the American Medical Association.

It now seems quite possible that the secretaries and editors of all constituent state medical associations will be invited to attend the special session of the House of Delegates to be held in Chicago on September 16 and that the annual conference of Secretaries of Constituent State Medical Associations will not be held this year. You willl be definitely advised about this at the earliest possible time.

It is highly desirable that each constituent state and territorial medical association be fully represented by delegates selected in accordance with the by-laws of the constituent associations and the Constitution and By-Laws of the American Medical Association. The necessary railroad and Pullman fares and a per diem of $5 will be provided for each delegate attending the special session.

Present plans contemplate that the special session of the House of Delegates will be held at the headquarters building of the Association in Chicago.

535 North Dearborn Street.

(Signed) OLIN WEST,
Secretary, American Medical Association.

* * *

(Copy of the Official Call for the Extra Session)

To the Members of the House of Delegates of the American Medical Association.

In compliance with the official request of members of the Board of Trustees that the House of Delegates be convened in special session, I, as Speaker, under authority of Chapter III, Section 2, of the By-Laws hereby officially call the House of Delegates of the American Medical Association to convene in special session in the City of Chicago, State of Illinois, at 10 a. m., daylight saving time, on the sixteenth day of September, 1938.

The business to be transacted at this special session shall be limited to the consideration of the national health program submitted to the National Health Conference recently held in Washington and to such other matters as may be submitted to the House of Delegates by the Board of Trustees.

The House shall remain in session, recessing from day to day, until its deliberations are concluded.

This call is issued August 26, 1938.

(Signed) H. H. SHOULDERS, M. D.,
Speaker, House of Delegates,
American Medical Association.

EXECUTIVE COMMITTEE: CALIFORNIA MEDICAL ASSOCIATION*

Digest of Minutes of the One Hundred and Sixty-Fifth Meeting of the California Medical Association Executive Committee

Held in the offices of the Association, 450 Sutter Building, San Francisco, Saturday, August 13, 1938.

1. Dr. T. Henshaw Kelly, San Francisco, was elected chairman.

2. Minutes of the organization meeting of the Council held on Thursday, May 12, 1938, at Pasadena, were ordered to be referred to the Council.

3. Minutes of the special meeting of the Council held on Saturday, June 12, 1938, at San Francisco, were referred to the October 1 Council meeting for approval prior to publication.

4. Report was made that the 1939 annual session dates, (Monday, May 1 to Thursday, May 4, inclusive) were satisfactory to the Hotel Del Monte management.

5. The date of the next Council meeting was set for October 1 and 2, 1938, at San Francisco (a two-day session).

6. Arrangements were made for a conference between Farm Bureau representatives and members of the Council, to be held on October 1 at San Francisco.

7. The annual joint conference of secretaries of Component County Medical Societies, and officers and councilors of the State Association was set for Los Angeles; exact date to be decided later.

8. Financial statements were presented and approved.

9. Report was made that the local Committee on Arrangements for the recent American Medical Association's annual session at San Francisco had refunded the sum of $1000, which had been allocated by the California Medical Association for use in case the same should be needed.

10. Report was made that the income for the current year from the Herzstein Bequest had been received, and in the amount of $832.96.

11. Approval was given to the work of the California Society for the Promotion of Medical Research.

12. Thanks were tendered Dr. Anthony Diepenbrock for his services as referee in the recent hearing for the San Mateo County Medical Society.

13. Report was made concerning the recent conference between the State Association Secretary and the Los Angeles County Grand Jury concerning the advisability of an Institutions Commission for the County of Los Angeles.

14. Report was made concerning the proposed studies by the Neuropsychiatry Section's Committee on Mental Hygiene. It was pointed out that all proposed legislation must be first submitted to the constituted authorities of the State Association before being presented to the California Legislature.

15. Request for funds for a scientific section's special committee was not granted because of financial policies involved.

16. Report was made concerning the appointment of a subcommittee on pneumonia control, to work under and with the Standing Committee on Health and Public Instruction.

17. Report was made concerning a proposed "Academy of Graduate Study of California" submitted by Dr. C. A. Broaddus of San Joaquin County. The project was referred to the Committee on Postgraduate Activities for study and report.

18. Authority was given to allocate books not needed in the central office of the Association to libraries of component county medical societies, provided book reviews would be submitted.

19. Action of the Editor in withholding from publication items in conflict with the Council's rules as outlined under Item 13 of the brochure, "Suggestions to Authors," was approved.

20. Authority was granted to publish a Community Chest story, provided it was of state-wide appeal.

21. Component county societies were urged to expedite the collection of data concerning the American Medical Association survey on medical care.

22. Several recently organized medical and hospital care organizations were discussed.

23. Status of the California Forestry Medical Service was considered.

24. Membership status in county, state, and national medical associations, with particular reference to situations in which county society by-laws were not in harmony with those of the California and American Medical Associations, was discussed.

25. Resolution passed by the House of Delegates at the Pasadena annual session, entitled "Resolution to Establish a Committee Outlining General Policies of Medical Profession," was referred to the Committee on Public Relations for consideration.

26. A recent ruling of the Attorney General of California regarding legal status of internes under the Medical Practice Act was discussed, and further study authorized.

27. Federal and State Unemployment and Capital Stock taxes were discussed by the committee, and instructions given to the Legal Counsel of the Association.

28. Report was made by the Legal Counsel concerning the cases of *Engleking* vs. *Carlson* and *People* vs. *Pacific Health Corporation.*

29. Letter to the Council from former Association Secretary Warnshuis was referred to the Council for consideration.

30. A statement for use of Association's addressograph was ordered sent to the Medical Problems Group.

31. Association Secretary was instructed to write the Western Safety Council offering the coöperation of the California Medical Association.

32. Distribution of remaining copies of the "Cancer Studies of the California Medical Association" was authorized.

33. The matter of a cancer exhibit at the Golden Gate International Exposition was referred to Chairman Kilgore of the Cancer Commission for study and report.

34. Communication from the Secretary of the Section on Industrial Medicine proposing a change of name was referred back, with the suggestion that the proper resolution be submitted at the next annual session for consideration by the House of Delegates.

GEORGE H. KRESS, *Secretary.*

Attest:

T. HENSHAW KELLY, *Chairman.*

* The docket of the one hundred and sixty-fifth meeting contained ninety-one items. Notes are made concerning more important topics considered.

MEETING OF CALIFORNIA MEDICAL ASSOCIATION COUNCIL, OCTOBER 1–2, 1938

The Council of the California Medical Association will meet in San Francisco on Saturday, October 1. Plans have been made for a two-day session.

COMMITTEE ON POSTGRADUATE ACTIVITIES

Digest of Minutes of Meeting Held in San Francisco August 27, 1938

Members present were: Doctors John C. Ruddock, Los Angeles, Chairman; Frederick F. Gundrum, Sacramento; Francis E. Clough, San Bernardino; George H. Kress, San Francisco.

1. It was voted that Dr. George H. Kress be elected to the position of secretary of the Committee on Postgraduate Activities.

2. Concerning scope of activities to be carried on during the present fiscal year, it was voted that these be essentially the same as outlined on page 5 of the CALIFORNIA AND WESTERN MEDICINE Supplement of November, 1937, entitled "Five-Year Study Program for Graduates in Medicine."

3. The members agreed that the Postgraduate work should consist largely of clinical presentations. Clinical material to be supplied as far as possible by the local physicians. Didactic presentations only as needed to properly emphasize the clinical exhibits.

4. County hospitals were voted as being best adapted for the proposed clinics. Where county hospitals were lacking in ample facilities the conference could be held at the private hospitals. Both the above lacking in accommodations, halls of fraternal orders might be considered. Occasionally doctors' offices could be used, but only when necessary. Attention is called to the advantage of meeting places where dinners can be served in order that attending physicians may be present at the late afternoon meetings, to be followed by dinner and round-table discussions, with subsequent clinical presentations afterward.

5. Concerning local contact or liaison representatives from county medical societies it was suggested that such local committeemen or representatives should be suggested who were sufficiently interested to make possible their continuation in such office for a period of several years, because the State program contemplated a five-year procedure in which it was desirable to have experienced contac: men to give aid. Such committeemen to have authority to appoint assistant or advisory members to aid. The communications with the central office of the California Medical Association and with the Committee on Program Activities to be through the representative of the county society who is acting as the liaison or contact representative.

6. For better purposes of administration, Dr. Francis E. Clough, 491 Fifth Street, San Bernardino, was given the district including San Diego, Imperial, Riverside, San Bernardino, Inyo, and Orange counties; Dr. John C. Ruddock, 1930 Wilshire Boulevard, Los Angeles, was given the district including Los Angeles, Ventura, Kern, Santa Barbara, and San Luis Obispo counties; Dr. Frederick F. Gundrum, 1127 Eleventh Street, Sacramento, was given the remaining counties throughout the state.

Postgraduate representatives of county societies are to feel free to contact these three district officers, as well as the Association Secretary, concerning plans for clinics. As to the financial background of clinics, the State Committee on Postgraduate Activities will underwrite the necessary expenses incident to plans that have previously received the approval of the State Committee; provided, however, that local committees are supposed to set up a registration fee schedule that will approximate anticipated expenses.

In cases where an excess is left from registration fees, the same is to be held under local supervision as a separate fund for utilization in subsequent postgraduate conferences. Report thereon to be always made to the State Committee on Postgraduate Activities.

7. Expenses of guest speakers who come long distances will include ordinary railroad fare, Pullman reservation, and meals on train. If clinics cover more than one day, hotel room and meals will be included. No specific honoraria to speakers, except by previous arrangement, each such case to be considered individually.

8. Concerning sequence of postgraduate activities, it may be possible, where adjoining counties or districts have worked out suitable plans, to provide clinics which could be held one or two days in one place, in a separate locality, on the succeeding day, and, should occasion arise, the clinics in additional places on one or two subsequent days. Under such a plan it will be necessary to work out detailed arrangements through mutual conferences, both through the central office of the Association and between the different societies and groups taking part.

9. Depending upon conditions, clinics might be arranged from 7 a. m. to 10 a. m. Physicians would then give attention to private work and practice until 4 p. m. Then physicians taking a course would meet for clinics up until 6 p. m. Dinner and round-table discussions and intermission from 6 p. m. until 8 p. m. Clinics again from 8 p. m. until 10 p. m. The plan just outlined would be subject to modification according to local arrangements.

10. Association Secretary was instructed to correspond with the four undergraduate medical schools: the University of California, Stanford Medical School, University of Southern California, and the College of Medical Evangelists, relative to possible coöperation of these institutions in supplying staff members who would work out suggestive programs and teams.

Large hospital staffs in metropolitan centers were similarly to be consulted concerning possible coöperation.

Coöperation with the new Committee on Pneumonia Control was also authorized.

Coöperation with the California State Board of Public Health, with particular reference to maternal and child welfare, venereal diseases, and crippled children clinics was also authorized.

11. The program of the State Committee on Postgraduate Activities of the coming year is to be brought out as a supplement to either the October or November issue of California and Western Medicine.

12. The importance of preliminary publicity among physicians to insure a good attendance by local committees was stressed. This courtesy was due to visiting physicians. The Association Secretary was authorized to send postcards or other notification to physicians living in the district to be covered by a clinical conference.

13. The plan submitted by Dr. Charles A. Broaddus of Stockton concerning "The Medical Academy of Graduate Study" was discussed. The opinion of the State Committee on Postgraduate Survey is that the time has not arrived when such a plan can be put into operation on a state-wide basis. It is felt that whatever may be done along this line should be carried out through local county units, and if in practice the plan was found to be satisfactory it could be extended. In the meantime the State Committee on Postgraduate Activities favored plans that would make for local and self-administered study clubs and clinics.

John A. Ruddock, *Chairman.*
George H. Kress, *Secretary.*

COMMITTEE ON PNEUMONIA CONTROL

Report of Meeting at San Francisco
Saturday, August 27, 1938

A Committee on Pneumonia Control has been appointed and approved by the Council of the California Medical Association as a subcommittee of the standing committee on Health and Public Instruction under the chairmanship of Dr. Fred B. Clarke of Long Beach. The committee consists of Dr. Roy E. Thomas, Los Angeles, chairman; Dr. Edwin L. Bruck, San Francisco; Karl F. Meyer, San Francisco; Dr. Lambert B. Coblentz, San Francisco; Dr. George D. Maner, Los Angeles; Dr. Daniel D. Comstock, Los Angeles; Dr. William P. Shepard, San Francisco.

At its first official meeting at California Medical Association headquarters in San Francisco on August 27, 1938, the committee discussed the pneumonia situation in California and plans for control in the light of modern diagnostic and therapeutic procedures. The committee finds that the state suffers an average of 1,862 deaths from lobar pneumonia each year. There are over 4,000 deaths from all forms of pneumonia, many of the bronchopneumonias being pneumococcic in origin and amenable to serum therapy. It is estimated that nearly half of these deaths could be prevented with modern methods of rapid typing and prompt administration of serum. There are thirty-two types of pneumococcic pneumonia and fairly effective specific antisera are available for eleven, Types I, II, III, IV, V, VI, VII, VIII, XII, XIV, XVIII. These types account for a considerable percentage of the fatal cases.

Neufeld rapid typing is partially available in some of the metropolitan areas of the state, and the committee is working on plans to extend these services throughout the state, through the assistance of the State Department of Public Health, the medical schools, and hospitals. Therapeutic sera for the eleven types are becoming more available through the biological houses. The desirability of offering free serum for indigents is being studied by the committee.

The purposes of the committee were clearly set forth as:

1. Assistance of the Committee on Postgraduate Training in offering instruction on diagnosis and treatment to all county societies in the state.

2. Assistance of the State Department of Public Health in its pneumonia control program.

3. Coöperation with medical schools in offering short courses during the pneumonia season.

4. Coöperation with nursing and other organizations which participate in handling pneumonia.

5. Education of the public through county medical societies on the importance of seeking competent medical care early.

The committee feels that pneumonia mortality can be effectively reduced by the practicing physicians of the state once they are provided with facilities for typing, ready availability of serum, and competent nursing assistance. It is to be hoped that these needs will be supplied in the near future. The committee's program will be based on diagnosis and treatment by private physicians.

Of the 1,862 average annual deaths from lobar pneumonia in California, as based on vital statistics on record, 81 per cent occur in thirteen counties and 42 per cent occur in Los Angeles and San Francisco counties. Counties having over thirty deaths a year have the following percentages of the total deaths:

	Per Cent		Per Cent
Alameda	6	Sacramento	7
Fresno	3	San Bernardino	3
Imperial	2	San Diego	5
Kern	2	San Francisco	12
Los Angeles	30	San Joaquin	5
Orange	1	Santa Clara	3
Riverside	2		

COMMITTEE ON PUBLIC RELATIONS

The Committee on Public Relations held a meeting at the State Association headquarters office in San Francisco on Saturday, August 27.

For digest of proceedings, see this page, right column.

MEDICAL SOCIETY OF THE STATE OF CALIFORNIA

A meeting of the Board of Trustees of the "Medical Society of the State of California" was held in San Francisco on August 13.

Medico-legal problems and best means for their solution were considered. This organization has been receiving constant additions to its membership as the value of its services has become better known. On request to the Central Office, information will be sent.

COMMITTEE ON POSTGRADUATE ACTIVITIES

The members of the Committee on Postgraduate Activities convened in San Francisco on August 13. Plans for the fall and winter postgraduate conferences were discussed. Component county societies are requested to write to the Committee on Postgraduate Activities, Room 2004, Four Fifty Sutter Building, San Francisco, or to members of the committee, whose names will be found on advertising page 2 of every issue of California and Western Medicine. Suggestions are cordially invited.*

SUBCOMMITTEE ON PNEUMONIC CONTROL

This newly authorized committee is a subgroup of the Committee on Health and Public Instruction. It will also work in conjunction with the Committee on Postgraduate Activities.

A statement concerning its work appears on page 223.

CONFERENCE OF COUNTY SOCIETY SECRETARIES AND CALIFORNIA MEDICAL ASSOCIATION OFFICERS

In January, 1939, the California Legislature will begin its next session, and the usual mass of new statutes with public health implications will be presented. All proposed laws are submitted in January. The Legislature then goes into recess for one month.

The meeting of the county societies secretaries and the California Medical Association officers will probably be held at the end of January or early in February. It is possible that Los Angeles will be chosen as the place of meeting. At its October meeting the Council will decide upon the time and place.

* For additional information, see page 222.

CALIFORNIA MEDICAL ASSOCIATION ANNUAL SESSION FOR 1939, HOTEL DEL MONTE, MAY 1–4, 1939

The 1939 annual session of the California Medical Association will be officially opened on Monday, May 1, 1939, at the Hotel Del Monte, in Del Monte.

Members of the Association who have in contemplation the preparation of papers for that gathering should communicate promptly with either the Association Secretary at the State Association headquarters office, Room 2004, Four Fifty Sutter Building, San Francisco, or with the Secretary of the Scientific Section before which the paper is intended to be read. The names of members of the Committee on Scientific Work appear in each issue of California and Western Medicine, on advertising page 2.

Hotel reservations are also in order. The Hotel Del Monte cannot house all who desire to attend, and physicians who wish to be guests in that hotel should write the management at once. The address is Hotel Del Monte, Del Monte, California. Mr. Carl Stanley is the manager and Mr. Natt Head is the assistant manager. All hotel reservations for the Hotel Del Monte and its affiliated hotels will be handled through the Hotel Del Monte management. A full list of hotels with rates will be printed in the October issue of California and Western Medicine.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

COMMITTEE ON PUBLIC RELATIONS

Digest of a Meeting Held in San Francisco on Saturday, August 27, 1938

1. Members present: Doctors George G. Reinle, Oakland; Fred B. Clarke, Long Beach; William Earl Mitchell, Berkeley; George D. Maner, Los Angeles; John H. Graves, San Francisco; Junius B. Harris, Sacramento; Alson R. Kilgore, San Francisco; John C. Ruddock, Los Angeles; Charles A. Dukes, Oakland; George H. Kress, San Francisco; and Mr. Hartley F. Peart, San Francisco.

Doctors Morton R. Gibbons and Karl L. Schaupp of San Francisco were present during the discussion of special reports. President William W. Roblee was unavoidably detained.

2. Concerning a possible public health exhibit at the Golden Gate International Exposition in 1939, it was voted that such exhibit should include in its scope, if possible, cancer, tuberculosis, heart, and other public health problems. The exhibit to be presented as an expression of the Herzstein Bequest.

3. Dr. Fred B. Clarke of Long Beach was deputized to represent the California Medical Association at the Western Safety Conference at the Hotel Ambassador, in Los Angeles, September 12 to 16, 1938.

4. Special report was made by Dr. Morton R. Gibbons of San Francisco relative to a proposed medical and hospital reimbursement plan for employees of the Standard Oil Company of California. Discussion of plans of other oil companies was also had.

It was voted that a committee, consisting of Doctors Morton R. Gibbons (Chairman), Fred B. Clarke, and John H. Graves, be authorized to communicate with the Standard Oil Company concerning possible plans and procedures.

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

Correspondence regarding the Fireman's Fund Insurance Company was referred to the above committee.

Correspondence concerning fee schedules for physical examination of applicants from the California Department of Employment was also referred to the above committee.

5. Letter from Dr. Thomas J. Dozier, Secretary of the Contra Costa County Medical Society, concerning a "Co-operative Hospital Association Plan," was given consideration.

The Association's legal counsel, Mr. Peart, was requested to make a study thereof and to report thereon.

6. Information that had been gathered concerning the "United Provident Association" of Oakland was considered.

Similar discussion was had regarding an organization known as the "Doctors Medical and Surgical Group" of Los Angeles.

7. Copy of Legal Counsel Peart's reply to Dr. Hugh F. Freidell of Santa Barbara Medical Society, concerning the Pacific Employers' Insurance Company, was ordered sent to other component county societies for their information.

8. Approval was given to the modified rules of the Associated Hospital Service of Southern California.

9. A medical service at Palo Alto concerning which items had appeared in the daily press was given consideration. A special committee, consisting of Doctors Reinle and Kress and Mr. Peart, was authorized to call the attention of the Palo Alto group to the Association's rules governing coöperation of Association members in medical and hospital service plans.

10. Attention was called to the congressional amendment of the Federal Compensation Law whereby the scope of that act was extended to include osteopathic practitioners, who would hereafter receive recognition within the scope of their practice, as defined by their respective state laws.

11. It was voted to recommend to the Council the appointment of a special committee of three to act as a contact group to represent the California Medical Association in conference with a similar committee from the Association of California Hospitals. This conjoint committee to consider work, problems, and prospective legislation of mutual interest.

12. A letter from Dr. Karl L. Schaupp of San Francisco, representative of the California Medical Association on the Federal Farm Security Administration's "Agricultural Workers' Health and Medical Association," addressed to President William W. Roblee, was discussed.

It was voted that a copy of Doctor Schaupp's report be sent to each component county medical society, and that it also be published in California and Western Medicine.

13. Recess was had for luncheon.

14. At the conclusion of the luncheon it was voted that members of the Committee on Public Relations, the Committee on Postgraduate Activities, and the Committee on Pneumonia Control view two films presented on behalf of the Committee on Pneumonia Control: one for possible display to lay audiences in cinema theaters, ond the other for physician audiences.

With the general purposes of both films, the Committee on Public Relations was in accord. However, until such time as an adequate supply of serum adapted to pneumonia types met with in California is available and within the reach of physicians, it was felt it would be wise to proceed with caution in the display of the film intended for lay audiences.

15. Concerning the resolution, "To establish a committee outlining general policies of the medical profession," adopted by the House of Delegates at the May, 1938, annual session at Pasadena, a special committee, consisting of the Chairman of the Committee on Public Relations (Doctor Reinle), the President-elect (Doctor Dukes), the Chairman of the Committee on Public Policy and Legislation (Doctor Harris), the Association Secretary (Doctor Kress), and the General Counsel (Mr. Peart), was appointed to outline certain policies.

16. The action of the Executive Committee concerning coöperation in efforts designed to defeat the proposed "Humane Pound Law" was approved. The matter will be given further consideration and final action by the Council at its meeting on October 1, 1938.

17. The recent ruling of the Attorney General of the State of California concerning the legal right of internes to practice medicine was considered. Dr. Junius B. Harris was appointed a Committee of One to coöperate with the Board of Medical Examiners of California in efforts to correct deficiencies in the present situation.

18. Proposed conference with representatives of the Farm Bureau of California to be held on Saturday, October 1, 1938, was considered and possible topics on which an exchange of opinion would be of value were suggested.

19. The Committee on Public Relations concurred in the point of view of the Executive Committee, that the Conference of County Society Officers and Officers with Councilors of the California Medical Association should preferably be held in February, subsequent to the January session of the California Legislature; time and place of this meeting during the February recess to be decided by Doctor Harris, Chairman of the Committee on Public Policy and Legislation.

20. Letter from the Nevada State Medical Association concerning renewal of affiliation in so far as the official journal of the California Medical Association is concerned, was read. It was felt that such coöperation was desirable, but that it should be on a subscription cost plan that would include every member of the Nevada State Medical Association; and that as regards publication of papers read before the Nevada State Association the same general policy should apply as is used with members of the California Medical Association.

21. Voted that a special committee be recommended for appointment to develop plans for speakers' bureaus in the different counties. Chairman Reinle appointed for this work, Doctors George Maner, Los Angeles (chairman), Fred B. Clarke, Long Beach, and H. M. Behneman, San Francisco.

22. Voted that the Los Angeles County Medical Association through its secretary, Dr. George D. Maner, submit a report on its radio broadcasting work and that publicity be given thereon in the official journal.

23. The need of coöperation by component county medical societies in the collection of data for the American Medical Association survey on medical care was emphasized, and instructions were given that a letter be written to the component county societies urging such coöperation.

24. Approval was given to plans submitted by Dr. Selda E. Anthony of Independence, Inyo County, for the formation of a medical group to include Inyo and Mono counties, with the suggestion that such a society, if formed, make application in due manner to the House of Delegates in May, 1939, for a charter as a component county medical society.

25. The difficulty of appropriating moneys from the General Fund of the State Association to carry on special work of scientific sections (as, for instance, the excellent program that has been under way by the Committee on the Hard of Hearing of the Eye, Ear, Nose, and Throat Section) was discussed. Under present conditions the Committee on Public Relations did not feel warranted in recommending to the Council that the past policy be changed.

26. Report was made concerning the new committee representing the Section on Neuropsychiatry that was appointed by that section. The Section's committee is to make a study and submit recommendations for changes in California laws having relation to mental hygiene.

27. Serious discussion was had concerning the scope of operations of certain lay medical service organizations that were being conducted for profit. The subject was deemed worthy of earnest study and subsequent report.

28. During the meeting a telegram was received from Olin West, Secretary of the American Medical Association, announcing a special session of the House of Delegates of the American Medical Association to be held in Chicago, Friday, September 16, 1938. The Association Secretary was instructed to secure additional information.

George G. Reinle, *Chairman.* George H. Kress, *Secretary.*

"CALIFORNIA AGRICULTURAL WORKERS' HEALTH AND MEDICAL ASSOCIATION"

*Report of Karl L. Schaupp, M. D., Member of the Board of Directors, and Representing the California Medical Association**

August 27, 1938.

To Dr. W. W. Roblee, President, California Medical Association:

As a director of the "Agricultural Workers' Health and Medical Association" (referred to in CALIFORNIA AND WESTERN MEDICINE, June, 1938, on page 460), it became necessary for me to go to Fresno last week, and while there I studied the practical operation of the service. As you know, I am on this Board as the representative of the California Medical Association, and I, therefore, feel that I should make a report to you at this time.

* * *

There are several fundamental principles involved, and in our coöperation with the Farm Security Administration it may be wise to restate these:

1. The purpose of this service is to give medical aid to those farm workers who are without funds or employment and who have not been resident within our state for one year.

2. This is a group which, when it did receive medical care, became the burden of the physician who had not the heart to refuse such care and who received no compensation for his services. It has been a burden to the physicians and to the hospitals.

3. When the FSA (Farm Security Administration) was faced with the problem of medical care of the migrant, who had become a public-health menace to the citizens of California as well as a danger to himself, it sought the advice and coöperation of the California Medical Association. This advice was given, and coöperation was promised at our meeting of April 29, 1938, and since then has been freely given.

4. A fee schedule was adopted by the Board which is the same as that used by the SRA, and which was adopted by that agency upon the advice of a properly constituted Medical Advisory Committee. This fee schedule was not meant to be one such as would be used by an insurance set-up. It was meant to compensate physicians and hospitals for the cost of their services and to give them a little above that cost. It was understood that the profession was still contributing, in large part, a service to community welfare. It was never intended that any person should under this system make more than a small profit.

5. It has been the intention of this service to take care of *acute* illnesses and those conditions which might become a menace to the public health. It was never meant to be a clearing house for the complete medical and physical rehabilitation of a group of migrants who might next year be far removed from our state.

6. A major principle of the plan is that there shall be free choice of hospitals and a free choice of physicians from all duly licensed doctors of medicine who are *eligible* to be members of the California Medical Association.

* * *

With these fundamental points in mind, I would now like to give you a report on what the results have been and would like to make some suggestions for the county societies and for the members at large.

To begin with, the plan has been working most successfully. The patients are, for the first time, receiving adequate care from a physician of their own choosing. Most of the local physicians have been coöperating in a manner that is highly gratifying and have done so cheerfully.

Moneys to the extent of $50,000 and $55,000 have been paid out for medical care each month where before the cost of this care fell upon the private physician, the private hospital, and the taxpayer of the county in which the nonresident (who was also a nontaxpayer) found himself. Of this sum spent monthly, slightly over half has gone to the physician.

* * *

It is regrettable that a few, a *very* few physicians and hospitals, are making an effort to capitalize on this plan and are taking every possible advantage to increase their incomes without regard to the needs of the service. A few of the physicians are very evidently making an effort to *find* work. They are performing operations which are apparently not emergencies. For instance, slating eight tonsillectomies in one family on one morning; three circumcisions in one family in one morning (in cases where no acute condition existed); making daily house calls for ringworm and in other ways attempting to build up a volume of practice. That some of these conditions are not always acute and that certain physicians are building up volume is shown by the fact that many of these patients, including the family of eight for tonsillectomy, have moved out overnight to escape operation! Some have even left the hospital at night to escape surgery. I do not wish to give the impression that many men are following these practices, but the few who do, certainly jeopardize the whole plan by causing a great increase in cost and by making the public feel that the medical man cannot be trusted to conduct such a service honestly.

There are also little offenses, such as writing costly prescriptions, attempting to classify minor as major operations, charging an excess for assistants at operations, and the like, that tend to increase the costs. It is well to remember that the *costs* must be paid back again some day in the tax rate, be they local or national.

A very few hospitals have been charging excessively for drugs and dressings, but have greatly increased the cost. For instance, one hospital where the charge for bed and nursing care for twelve days was $48 charged over $25 for drugs, including one gallon of camphorated oil and enough aspirin, so that if the patient had gotten it all he would have received one tablet every twenty minutes for the entire time he was in the hospital!

The above practices can largely be eliminated by calling the attention of the profession to the facts, and I believe this should be done.

* * *

At our Board meeting yesterday it was decided to employ a part-time medical adviser from one of the Valley counties, who is to advise the executives of the central office of the corporation. This man will be chosen upon the recommendation of one of the county medical societies. He will be a physician who is familiar with the type of work that is done.

Fresno County has already named a Medical Advisory Committee to guide the nonmedical administrators and will be a logical group to whom the medical adviser can turn for advice and it would be the logical group through which discipline could be administered if it should ever become necessary. It is my suggestion that each county society of those counties in which this plan operates should name a similar advisory committee.

* * *

At the present time Kern County is not included in the working of this plan. We were informed that the county could take care of its own problem and that the extension of our services to that district was not desired. Added to this the "grant list" of FSA only had 356 names, which seemed to make the establishment of such a service unnecessary. In conversations with Doctor Packard, and from correspondence with Doctor Compton of Bakersfield, however, I feel that we have not been completely informed and that the need is there; and, if that is the case, I believe that we shall operate in that county, as in others, in the near future.

There is one other important feature about this work which should be generally known. Until the present time we have had no accurate knowledge of the cost of medical service in any insurance plan. In this piece of work we are getting that experience which will be of great importance in any future planning of health insurance.

Respectfully submitted,

KARL L. SCHAUPP.

* This report was submitted to the California Medical Association Committee on Public Relations at its meeting held on August 27. The report was ordered to be printed for the information of component societies and members.

COMPONENT COUNTY MEDICAL SOCIETIES

HUMBOLDT COUNTY

The Humboldt County Medical Society met on the evening of August 1 at the General Hospital in Eureka. President Francis M. Stump presided.

Twenty members were present. Visitors present were: Doctors Copeland and Norman Epstein, representing the State Venereal Health Department.

Dr. Wilson Stegeman of Crescent City gave a very able and well-received paper on *The Prevention of Postoperative Complications by the Giving of Glucose by Mouth Before Operations.*

Dr. Norman Epstein spoke on *Syphilis,* and outlined the part our Society can take in aiding the prevention of venereal diseases. This talk was very much to the point and well received.

LAWRENCE A. WING, *Secretary.*

LASSEN-PLUMAS-MODOC COUNTY

A vacation season meeting of the Lassen-Plumas-Modoc County Medical Society was held at the summer home of Dr. F. J. Davis, Sr., on Lake Almanor, Saturday evening, August 13. Members from Alturas, Susanville, Westwood, and Portola were present, representing a distance of two hundred miles.

After a fine dinner of barbecued steak, a general discussion and case reports were given. It is planned to hold another meeting in Susanville early in the fall for the election of officers.

FRED J. DAVIS, JR., *Secretary.*

LOS ANGELES COUNTY

The "Camp Transparent Woman," on display in the lounge of the Los Angeles County Medical Association, 1925 Wilshire Boulevard, Los Angeles, was viewed by nearly twenty thousand during the first four afternoons and evenings of its public showing.

A preview for the members of the Association and their wives and friends was held on Monday evening, July 25. Radio Station KFI, recognizing the widespread public interest in this educational exhibit, presented a fifteen-minute broadcast from the lounge of the Association at 9:30 o'clock Monday night. In this broadcast, Dr. Ralph B. Eusden, President of the Association, and Dr. George D. Maner, Secretary, were interviewed by Mr. Jose Rodriguez, editor of KFI, and Mr. J. Vandirveer, interviewer for the station.

Because of the publicity that preceded this broadcast and the radio area covered by KFI, more than five thousand persons passed through the buildings of the Association on Tuesday evening between the hours of 5 and 9:30.

The great reception given to this first broadcast resulted in Radio Station KFI presenting a second broadcast on Wednesday evening, July 27, at 9:45 o'clock. Particular attention at this second broadcast was given to the skeletal structure. Dr. Edwin B. Plimpton, orthopedic surgeon, was interviewed by Mr. Rodriguez. Mr. Vandirveer interviewed individuals in the audience, all of whom expressed their deep appreciation to the Los Angeles County Medical Association for presenting such a worth while, educational feature.

Because of popular demand the hours of showing were changed from 5 to 9 p. m. to 2:30 to 9:30 p. m. A brief lecture on the anatomy is presented at intervals of twenty minutes during the time of the showing.

Officials representing Mr. S. H. Camp, who was responsible for the creation of the Camp Transparent Woman, state that the reception being given in Los Angeles exceeds that of any other showing, not excepting that in the Rockefeller Center in New York, where the Transparent Woman was first exhibited in this country.

The value in public health education of this feature is very difficult to estimate. More than 70,000 individuals viewed the figure and heard the lectures before August 12, at which time the Camp Transparent Woman was taken to Portland, Oregon. Comments among the members of the audience were highly enlightening. Among them were these:

"I never thought that the kidneys were located so high. The next time I have a backache in the small of my back I am not going to take kidney pills; I am going to find out what's wrong."

"I am not going to take the medicine my neighbor recommends for a pain in the side. How does she know what's wrong with me?"

"I never knew I had a spleen before, and isn't it interesting to know something about the pancreas and diabetes."

Walking among the spectators, hearing their comments and noting their intense interest in everything said and shown, one realizes the intense desire for authentic health information and the great interest people of today have in their physical selves.

The audiences are impressed with what the science of medicine is doing, and leave with a better understanding of the complexities of medicine and the need for consulting a physician when they are ill.

STANLEY K. COCHEMS, *Executive Secretary.*

MENDOCINO-LAKE COUNTY

The Mendocino-Lake County Medical Society met on August 9 at Laurel Dell. The meeting was called to order by President Charles Craig. The following members were present: Doctors Toller, Cushman, Hill, Bramkamp, Beil, Gericke, Kirwin, Wagner, Smyth, Morley, Craig, Smalley, Thomas, Brink, and Mooy. The guests of the evening were: Dr. Epstein, Dr. Copeland, Dr. Harr, Dr. Curtner, and Louise Petty.

The members were urged to complete their studies of medical care and forward them to the secretary.

A splendid talk on *Syphilis* was given by Dr. Norman Epstein. The talk was illustrated by slides, and considerable discussion was elicited regarding the treatment of neurologic syphilis. Doctor Epstein explained the details of fever therapy as given at the University of California.

Before adjournment, resolutions were adopted thanking Doctors Epstein and Copeland.

An expression of opinion was obtained in regard to the desirability of having a scientific speaker for the next meeting. Sentiment was strongly in favor of having such a speaker, who was to be obtained by the president and the secretary.

The next meeting will be held in Willits the latter part of September. The date will be decided later.

The members were exhorted by Doctor Cushman to make every effort to attend the meetings and to get every eligible practicing physician in the counties to apply for membership.

ROBERT B. SMALLEY, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (50)

Alameda County

C. W. Bice
Ruth E. Harmon
William F. Holcomb
Robert P. Lesser
Carl Louis Mauser
Robert J. McIvor
Joseph Olsen
David M. Parker
Gaynelle Robertson
Harold I. Sipman

Los Angeles County

Millard C. Bradley
James L. Bray
George E. Clark
John G. Clegg
Dudley M. Cobb, Jr.
Charles Wagner Gilfillan
John E. Gregory
Julius Hersh
Lawrence McKinley Hill
Henry L. Hilty
Joseph Hittelman
James V. Keipp
Ralph R. Kerchner
Erwyn L. Kirsten
Clyde H. Landers
Anton Laubersheimer
Lawrence D. Lee
Claude Harry Linsley
Joseph A. Marlo
Hugh Maclean
David L. Reeves
Gabriel A. Rivera
Ernest M. Stanton
Morris Steinman
Charles W. Tidd
Walter Max Tirrell
John J. Toma
Clayton G. Woodhull

Mendocino-Lake County

Joseph H. Smyth

Monterey County

Reinhard Bachrach M. McAulay
Marshall L. Carter

Napa County

Dallas B. Kittle

Placer County

S. Fritz Tobias Robert P. Weddle

San Bernardino County

Ralph N. Root

San Francisco County

Robert Wartenberg Dwight L. Wilbur

San Mateo County

Norman D. Morrison, Jr. Maurice R. Oliva

Transferred (1)

Arnold Manor, from San Francisco to Monterey County.

In Memoriam

Carpenter, Frank Lossing. Died at Berkeley, May 16, 1938, age 70. Graduate of the University of Buffalo School of Medicine, 1891. Licensed in California in 1893. Doctor Carpenter was a member of the Alameda County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Harris, Henry. Died at San Francisco, July 7, 1938, age 64. Graduate of Johns Hopkins University School of Medicine, Baltimore, 1899. Licensed in California in 1900. Doctor Harris was a member of the San Francisco County Medical Society, an honorary member of the California Medical Association, and a Fellow of the American Medical Association.

✝

Hull, James Porterville. Died at Stockton, July 23, 1938, age 66. Graduate of University of California Medical School, San Francisco, 1895, and licensed in California the same year. Doctor Hull was a member of the San Joaquin County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

✝

Newcomb, Arthur Thurston. Died at Pasadena, July 18, 1938, age 66. Graduate of Baltimore Medical College, 1893. Licensed in California in 1899. Doctor Newcomb was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Schwarz, Theodore Edward. Died at Oakland August 4, 1938, age 61. Graduate of the Medical College of Ohio, Cincinnati, 1900. Licensed in California in 1928. Doctor Schwarz was a member of the Alameda County Medical Association, the California Medical Association, and the American Medical Association.

✝

Simmons, Gustavus Crocker. Died at Inverness, August 8, 1938, age 75. Graduate of Harvard University Medical School, Boston, 1885. Licensed in California in 1886. Doctor Simmons was a retired member of the Sacramento Society for Medical Improvement, the California Medical Association, and the American Medical Association.

✝

Upshaw, Harry Thomas. Died at Pasadena, August 11, 1938, age 47. Graduate of St. Louis University School of Medicine, 1915. Licensed in California in 1926. Doctor Upshaw was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

OBITUARIES



Arthur Thurston Newcomb
1871–1938

"News of the passing of Dr. Arthur Thurston Newcomb came as a severe shock and brought sadness to the hearts of his many friends and patients, who recalled that it seemed but yesterday that they had been cheered by his jovial manner and winning smile.

"Active at the Huntington Memorial Hospital until he was taken ill on July 8, there were many who even were unaware of his illness until they learned that he had 'slipped away' early this morning. His wish during nine years of failing health that he might 'carry on to the end' had been granted.

"Doctor Newcomb was born in Killawog, New York, on December 8, 1871, the son of Franklin T. and Elizabeth Thurston Newcomb. After his regular preparatory education he was graduated in medicine from the University of Maryland in 1893, afterward taking postgraduate work at Johns Hopkins in 1893-1894. He studied research at the University of Chicago in 1898-1899 and at Johns Hopkins in 1903 and studied internal medicine and special courses in Vienna in 1912-1913.

"After serving as government physician and surgeon at Fort Mojave, Arizona, from 1893-1898, Doctor Newcomb came to California in 1900 and has been practicing in Pasadena ever since. For eighteen months during the World War he was chief of medical staff at the base hospital at Camp Kearny in San Diego. One of the founders of the Pasadena Hospital, Doctor Newcomb was the oldest serving member of the staff of the Huntington Memorial. He was one of the pioneers on the Pacific Coast in electrocardiography and fluoroscopy, bringing one of the first x-ray machines from Vienna in 1913.

"Doctor Newcomb was a life member of the American College of Physicians. He also was a member of the California State and Los Angeles County Medical Associations and the American Therapeutic Association; an early member of the Los Angeles Clinical and Pathological Society, and a member of the University Club of Pasadena.

"In the passing of Doctor Newcomb Pasadena has lost a well-beloved and highly respected citizen, a man whose love of people and community interest were paramount.

"He was blessed with a remarkably genial and optimistic temperament, and thereby, in his disposition, he inspired confidence and hope from the first moment of interview. He was deeply sympathetic, too, and shared with those who came to him, often with troubled minds and harassing fears, the emotions natural to the suffering human beings, and innumerable must have been the instances in which he kindly exerted himself, at cost of inconvenience and growing fatigue, particularly for those in straitened circumstances, and from whom he could never expect to be materially well paid. Thousands will miss the familiar face and voice of this distinguished citizen and man of humane science; consoled and strengthened only by the thought that Pasadena is so much the better for his life and decades of faithful and unselfish service here."



Henry Harris
1874–1938

The American Medical Association, and thereby its component units, lost a valued and respected member of the medical profession last July 7. Dr. Henry Harris, at the age of sixty-three, fell a victim to coronary disease, another doctor to fall from this frequent cause of death in our profession. Doctor Harris was known not only as an able practitioner of medicine, but as a student, and his inquisitive mind combined with a spirit of adventure gave him a full sixty-three years. He was a graduate of Johns Hopkins Medical School and followed this with a period of study in Europe. Doctor Harris was an outstanding example of many men of medicine who succeed in spite of illness; who, in fact, seem to be spurred on to greater study and accomplishment because of their own bodily infirmities.

Doctor Harris was widely known as a student and lecturer in the history of medicine, and I can speak from personal experience that he was never too busy to discuss this interesting phase of medicine. He was an honorary member of the San Francisco County Medical Society; he established and was the first librarian of that society; he published a widely read book, "California's Medical Story"; and he was at work, with Dr. Karl Meyer, on a history of bacteriology in the West.

Whether you agreed with Doctor Harris or not, you were completely disarmed by the charm of his presentation and the immediate conception that whatever he told was with a profound depth of sincerity. Doctor Harris was an able consultant, but with it a general bedside family doctor of whom Osler would have been proud. He leaves a wife, two daughters and a son, and they may continue on with the happy knowledge that throughout California, wherever Doctor Harris was known, he will be missed as a sincere and true apostle of Hippocrates.

H. M. F. Behneman, M.D.

✝



Joseph M. Swindt
1906–1938

Joseph M. Swindt died by his own will at Olema, California, on July 8. He was born in Pomona and was graduated from Pomona College and the Cornell University Medical School. He interned at the San Francisco City and County Hospital, and later was assistant resident in surgery there and at the University of California Hospital. His father, Joseph K. Swindt, until retirement from ill health a year ago, was one of the most eminent and respected surgeons of Southern California.

In 1936 he started practice in Chino and nearby Pomona, California. He was a well-trained, capable and highly conscientious physician. With the true spirit of the ideal physician he devoted his life to his patients. Forever striving to increase his knowledge and improve his results he was never satisfied with less than perfection. He felt a personal sense of responsibility in the presence of nature's as yet unsolved problems. In his own words, "I am not afraid of death—it is an old friend." In his passing many California physicians have lost a cherished friend and highly respected colleague.

Lewis T. Bullock, M.D.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION †

MRS. CLIFFORD A. WRIGHT.....President
MRS. FRED H. ZUMWALT.....Chairman on Publicity
MRS. FRANK H. RODIN....Assistant Chairman on Publicity

Health Education

Modern science has made the world, and particularly our cities a far more convenient place in which to live than it was only a generation or two ago. The chemist, the physicist, and the engineer take a proper pride in the fact that their discoveries and inventions have facilitated travel and other forms of human activity and have enormously increased the production of wealth. The extent of the benefits that they have conferred upon civilization may be estimated by considering the difference that it would make to our city if it were suddenly deprived of one or more of these inventions or discoveries.

Yet, great as would be the inconvenience involved, the loss of electricity or any other product of physical science, the changes in the condition of life would be small compared with those which would result from the loss of modern medical science.

It would be a matter of life and death for the greater part of the inhabitants of every city, large and small. Pestilences would return and epidemics would sweep across the country, and within a decade the greater part of the population would have been wiped out. If the measures of preventive medicine were lost, if drinking water were no longer protected or purified, if the sanitary disposal of sewage were not practiced, if vaccinations were discontinued, every facility for rapid transportation would be equally effective for the rapid spread of disease. Diseases now almost forgotten would return to take their place with the existing pestilences. Surgery would be the brutal operations of the ancients without anesthetics. Asceptic ob-

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Frank H. Rodin, Assistant Chairman of the Publicity and Publications Committee, 2457 Bay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Rodin, and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

stetrics would be replaced by the medieval midwife or the unsanitary hospital with an enormous death rate from child-bearing fever.

In spite of the fact that the benefits of both physical science and medical science are vital to modern civilization, many people take quite different attitudes toward these essentials.

Unfortunately, in many cases the attitude toward medical science is not merely one involving a lack of enthusiasm and indifference to the benefits conferred, but is rather one of active opposition. The antivaccinationists, for instance, oppose one of the most essential and best proved measures of preventive medicine, and it is due to them that smallpox still persists. The antivivisectionists oppose medical investigation, both for new knowledge and for knowledge already won.

There are two philosophies of medicine: The primitive or superstitious and the modern or rational. Many of the people who oppose modern medical science still cling to the philosophies of primitive medicine which are deeply rooted in human character. The belief is that disease is caused by supernatural forces and associate disease with sin, and attempt to control them by ceremonial and superstitious measures, or to drive them away by wishful thinking. Intelligent man recognizes that knowledge is the sole means of preventing disease. The measures he relies upon to prevent and cure are those which have resulted from scientific investigation and have been proved to have been effective by experience.

The transition from primitive to rational medicine is seen in many ancient civilizations. The prophet Moses drew up a rational sanitary code, but it is typical of the stage of civilization in that he built his sanitary code into the religion of his people. In the fifteenth century B. C., Hippocrates, the greatest of all physicians, separated medicine from religion. He relieved the gods of the responsibility for disease and placed it squarely upon the shoulders of man. The history of medicine, from Hippocrates to the present time, is the record of the extent of man's acceptance of his responsibility. He gave rational medicine the general form it holds today. He laid down certain principles of science upon which modern medicine is built. These principles are in substance: There is no authority except facts. Facts are obtained by accurate observation. Deductions are made only from facts.

Therefore, as doctors' wives should we not avail ourselves of the opportunity and privilege to study and learn what we can of these facts so that we may be instrumental in developing a better understanding of scientific medicine among the women in the community in which we live?

Our president, Mrs. Clifford Andrews Wright, states that women are being recognized more and more as an influence in the affairs of the country, and as doctors' wives must be prepared to take their place in the community and keep growing mentally to meet the ever-changing needs.

Since no profession is more spiritual than rational scientific medicine in its ministrations to the needs of mankind, it is essential to be informed and well armed with facts if we are to be able to reach out into lay organizations to foster the aims of the medical profession and to help guide the health opinions of lay organizations. It is important for those who can to become active members in women's organizations in order that they may with dignity and knowledge inform the members of the difference between scientific medicine and quackery should the opportunity arise.

Many initiative measures pertaining to health—some good, some bad—are introduced each year in the California Legislature. In studying these bills and amendments we can familiarize ourselves and keep in touch with the trends affecting scientific medicine.

MRS. FRANK H. RODIN.

Milk Facts.—The dairy industry's importance to the national economic system is graphically visualized in the new "Milk Facts" booklet issued by the Milk Industry Foundation, Chrysler Building, New York.

Charts show that the United States is one of the ranking nations in the consumption of dairy products. With per capita consumption of fluid milk at 153 quarts a year, America tops all other countries except Switzerland with 232 quarts.

Annual per capita milk consumption in quarts for other nations is: Denmark, 144; Czechoslovakia, 136; Netherlands, 120; New Zealand, 112; Great Britain, France, and Germany, 92; Australia, 88; Belgium, 68; and Italy, 28.

"Milk, in one form or another, comprises over 25 per cent of the 1,500-odd pounds of food used each year by the average American," says the booklet. "It requires about ten and one-half quarts of milk to make a pound of butter and four and one-half quarts to make a pound of cheese. Approximately 350 million new milk bottles are purchased annually."

The booklet contains pictorial charts and figures showing the importance of the milk industry to the country's economic picture. Diagrammatic charts illustrate how the United States utilizes its milk supply of some 48,777,000,000 quarts of milk a year.

Fluid or fresh milk, which provides the farmer's highest cash return, accounts for 29.2 per cent of the country's yearly production. Creamery butter takes 31.6 per cent, farm butter 10.5 per cent, while 12.1 per cent of the milk is used on farms where produced. In making cheese, 5.9 per cent of the total milk is used; ice cream, 2.3 per cent; and canned milks, 4.3 per cent, according to charts.

Another chart shows a breakdown of the distributor's milk dollar based on recent certified accountants' figures prepared for the New York legislature. This shows that 44.03 per cent of the dollar goes to dairy farmers for milk; 26.16 per cent to labor; 8.75 per cent for supplies—bottles, cases, trucking, etc.; taxes, 2.24 per cent; depreciation, 2.40 per cent; profits, 2.98 per cent; salaries, less than one-half of one per cent.

"Within less than fifty years," says the booklet, "the production and utilization of milk have so increased in this country that today we are the greatest of dairy nations.

"Milk is our most widely used food, the farmer's largest source of cash income and the basis of an industry which for service and volume has few equals.

"Basic data about the nation's milk supply, the producers and the cows which create the supply, the distributors whose safeguards and efficiency have made wide usage possible, and the consumers of this 'most nearly perfect food' are of wide interest.

"Around twenty-five million cows are milked daily on three-quarters of the nation's six million farms—more than forty-five million quarts of milk are delivered to homes and stores. Milk, cheese, butter, ice cream and other dairy products create an estimated annual output of three and one-half billion dollars.

"The statistical background for this vast industry of wide ramifications should lead to a clearer understanding of milk economics."

Government Continues Seizure of Poisonous Eyelash Dyes.—The Federal Government is continuing its seizure of poisonous eyelash dyes. On the recommendation of the Food and Drug Administration of the Department of Agriculture, Federal District Attorneys at New Orleans, Louisiana, and Houston, Texas, recently caused the seizure of consignments of "Magic-Di-Stik Lash and Brow Dye," manufactured by Dependable Concentrated Cosmetics, Inc., Los Angeles, California. Another lot at Memphis, Tennessee, is being proceeded against. The Government charges that this product is adulterated within the meaning of the recently enacted Federal Food, Drug, and Cosmetic Act because it contains paraphenylene diamin—a poisonous coal-tar preparation which may cause serious eye injury or even blindness to users.

This product is in many respects similar to "Lash-Lure," the preparation which was the first article seized under the new law. Many injuries have resulted from the use of preparations of this type because, until the new statute was passed, the Government had no control over cosmetics, and traffic in these dangerous preparations was allowed to flourish.

The distributors of Magic-Di-Stik, like those of Lash-Lure, enclosed in each package slips to be signed by customers designed to absolve the beauty shop distributor and manufacturer from any liability if the use of Magic-Di-Stik results in injury.

While most of the provisions of the Food, Drug, and Cosmetic Act do not become effective until one year after June 25, 1938, the interstate shipment of dangerous cosmetics is immediately prohibited.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, St. Louis, Missouri (date to be announced later). Olin West, M.D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

California Medical Association, Hotel Del Monte, May 1 to 4, 1939. George H. Kress, M.D., Secretary, 450 Sutter Street, San Francisco.

* * *

American Hospital Association, Dallas, Texas, September 26 to 30. Bert W. Caldwell, M.D., 18 East Division Street, Chicago, Executive Secretary.

Colorado State Medical Society, Estes Park, September 7 to 10. Mr. Harvey T. Sethman, 537 Republic Building, Denver, Executive Secretary.

Nevada State Medical Association, Reno, September 23 to 24. Horace J. Brown, M.D., 120 North Virginia Street, Reno, Secretary.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of September is as follows:

Thursday, September 1, KECA, 11:00 a. m., The Road of Health.
Saturday, September 3—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, September 8—KECA, 11:00 a. m., The Road of Health.
Saturday, September 10—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, September 15—KECA, 11:00 a. m., The Road of Health.
Saturday, September 17—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, September 22—KECA, 11:00 a. m., The Road of Health.
Saturday, September 24—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, September 29—KECA, 11:00 a. m., The Road of Health.

Pellagra in California.—An analysis of 520 cases of pellagra reported in California from 1928 to 1935 has been made by Dr. Charles E. Smith of the Department of Public Health and Preventive Medicine, Stanford University School of Medicine, and Ida May Stevens of the Bureau of Epidemiology, California State Department of Public Health.

A total of 942 cases of pellagra were reported to the California State Department of Public Health during the years 1920 to 1935. Histories were requested covering 627 cases reported during the years 1928 to 1935, and 520 of this group were selected for study.

Pellagra is due to the use of a diet lacking in vitamin G. In southern states outbreaks resembling epidemics are common. In California cases are sporadic, and there is never any suggestion of epidemics in the appearance of the disease. In California, as in the southern states, pellagra is more prevalent in the spring and early summer than during the other seasons of the year.

*County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

Inter-State Postgraduate Medical Association.—The International Assembly of the Inter-State Postgraduate Medical Association of North America will be held in the public auditorium of Philadelphia, Pennsylvania, October 31, November 1, 2, 3, and 4. A list of the contributors to the program may be found in the advertising section of this journal, on advertising page 28.

The Medical Corps Reunion in Los Angeles.—One of the features of the 1938 American Legion Convention which will be held at Los Angeles, September 19 to 22, inclusive, will be the Medical Corps reunion in which the Army, Navy, Marine Corps, Air Service, and Dental Corps of the Army are coöperating. Luncheon will be held at the Cocoanut Grove of the Ambassador Hotel, 3400 Wilshire Boulevard, Los Angeles, on Wednesday, September 21, at 12:30 noon. The nurses and enlisted personnel of all the Services are invited, as well as wives or husbands of medical delegates to the National American Legion Convention. Further information can be obtained from Charles W. Decker, M.D., Medical Corps Reunion Chairman, 3400 Wilshire Boulevard, Los Angeles.

New Era Opens for People with Hearing Defects.—New technique and additional knowledge in the field of audiometry which may be hailed as a boon to the great mass of people afflicted with defects of hearing was described to physicians and surgeons, members of the American Medical Association, in annual meeting here. Research and investigation over a period of years now makes possible the correction of defective hearing on much the same plane that correction of sight defects has been established.

Two men who have made important contributions to this development and who reported their findings today are Dr. Isaac H. Jones, Los Angeles physician, and Dr. Vern O. Knudsen, physicist and acoustician, at the Los Angeles campus of the University of California, their report being entitled "What Audiometry Can Now Mean in Routine Practice."

The paper calls attention to the fact that physicians are known to be devoted to every phase of their work except in the one field of service to the hard-of-hearing, and explains the blame for this should probably be divided about equally between practitioner and patient.

"We are now able, with precision, to measure and diagnose conditions of the middle and internal ear and to treat them intelligently," states the report. "We can also, as the ophthalmologist has done for so many years, prescribe the type of aid with which each patient will hear best; and in many instances we can secure an instrument that will meet our prescription. The instruments of precision for diagnosis are available and yet very few of us use them.

"It is freely admitted everywhere that a careful study of a hard-of-hearing patient should include the vestibular tests and audiometric tests with a standardized audiometer in a soundproof booth. Another test which we have found of such value that we have used it routinely for fifteen years—a study of the middle-ear mechanism by a pneumatic oscillator with an electric otoscope."

The test makes it possible to "see the ear hear," which, to a great extent, can be accomplished in clinical practice. Audiometry is now beginning to be recognized as a legitimate and necessary part of the practice of physicians, the paper points out, and equipment including an audiometer is necessary. Standards for an acceptable audiometer are set forth, with the statement it is now possible to purchase one that will not be outdated and obsolete for five or possibly ten years.

American Association of Medical Milk Commissions. Dr. John P. Nuttall of Los Angeles and Wilson H. Lee of New Haven, Conn., were elected presidents of the American Association of Medical Milk Commissions and the Certified Milk Producers Association of America, respectively, at the joint annual conference of those associations recently held.

Dr. Nuttall is chairman of the Los Angeles County Medical Association Milk Commission. Mr. Lee, 86 years old, is one of the oldest active certified milk producers in the United States. He owns Fairlea Farms, Inc., Orange, Conn., and was president of the C. M. P. A. A. for three years, about twenty years ago.

Highlights of speeches before the conference follow:

A new deal in human nutrition is needed in this country for a real economic recovery, Dr. James A. Tobey, New York nutrition expert, declared. He advocated a diet with a much higher consumption of milk, bread, fruits and vegetables than is now normally consumed, and with less sugar. This would provide a distinct improvement in our national vitality and would be of great benefit to American farmers, fruit growers, dairymen, millers and bakers.

The garden, the grocery, the orchard, the dairy, the butcher shop and the great out-of-doors—rather than the drug store—should be depended on in great measure to supply our dietary needs, Dr. Nina Simmonds of the University of California told the conference.

Diets inadequate in vitamin C intake are not at all uncommon in the United States, C. C. Davis, laboratory director for the New Orleans Medical Milk Commission, declared. Certified milk is a good source of vitamin C at the time it is produced, Mr. Davis said, but the problem seems to be one of conserving the vitamin.

Scurvy is occurring with sufficient frequency to warrant serious consideration, Dr. R. Cannon Eley of the Boston Medical Milk Commission said. In a recent ten-year survey made at the Infants and Children's Hospital of Boston from 1926 through 1935, 314 cases of this disease were treated. In 1926 there were thirty-two cases and in 1935 there were thirty-eight cases. Twelve of the leading Boston hospitals now use certified milk in the preparation of all infants' formulas.

A detailed study of bovine mastitis is being conducted by the Veterinary Science Division of the University of California, Dr. Oscar W. Schalm of that university reported. It is a more complete study than any made to date.

Heat processing of cow's milk seems to have a tendency to interfere with the bone development of children, while raw milks apparently encourage normal bone and physical development, Dr. F. M. Pottenger, Jr., of Monrovia, Cal., said.

Addition of pasteurized milk to the certified milk list provided the ultimate in safety and goodness in milk for public consumption, Dr. K. H. Sutherland, health officer of Orange County, Cal., declared. "By so doing, you are providing the ultimate in safety and goodness in milk," he said.

The general milk supply of the nation has been steadily improved through the example set by certified milk, Dr. J. Howard Brown of Johns Hopkins Hospital, Baltimore, asserted. Doctor Brown quoted from many prominent authorities on the importance of certified milk to the dairy industry.

Competitive use of certified milk with other milk grades, so that a large group of feeding cases of babies could be made available for statistical comparison, Dr. Harold L. Barnes of Brooklyn, N. Y., chairman of the Kings County Medical Society Milk Commission, urged. The use of certified milk in Brooklyn is increasing steadily, Doctor Barnes said.

Increasing interest is being shown by the medical profession in homogenized soft curd milk which should be supplied in the form of certified milk—homogenized, Dr. Irving J. Malcolm of Philadelphia Children's Hospital declared.

Importance of proper diet in the treatment of such diseases as arterial sclerosis, skin diseases, syphilis, night blindness, migraine, neuritis and anemia was stressed by Dr. J. C. Norris, president of the Fulton County Medical Milk Commission, Atlanta, Ga.

American Board of Internal Medicine, Inc.—Written examinations for certification by the American Board of Internal Medicine will be held in various parts of the United States on Monday, October 17, 1938, and on Monday, February 20, 1939.

Formal application must be received by the secretary before September 15, 1938, for the October, 1938, examination, and on or before January 1 for the February, 1939, examination.

Application forms may be obtained from William S. Middleton, M. D., Secretary-Treasurer, 1301 University Avenue, Madison, Wisconsin.

American Board of Obstetrics and Gynecology.—The next written examination and review of case histories of Group B applicants by the American Board of Obstetrics and Gynecology will be held in various cities of the United States and Canada on Saturday, November 5, 1938.

The next general examination for all candidates (Groups A and B) will be held in St. Louis, Missouri, in June, 1939, immediately prior to the American Medical Association meeting.

Application blanks and booklets of information may be obtained from Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania. Applications for these examinations must be filed in the secretary's office not later than sixty days prior to the scheduled dates of examination.

General Training Stressed in University Medical School.—"What the public needs is not the specialist, but a health coördinator, physician, psychiatrist, and confessor all in one; in other words, a general practitioner," Dr. S. P. Lucia, assistant professor of medicine at the University of California Medical School, declared in explaining the school's organization of curriculum.

Doctor Lucia, writing for the *Journal of the Association of American Medical Colleges*, outlines the organization of the senior curriculum, which has been evolved from experiments begun in 1923. Under this plan the work of senior students is conducted primarily in the out-patient department of the University of California Hospital.

Here approximately twenty-two thousand patients, a third of them from communities throughout the state, are accommodated each year. In the out-patient clinic the students, under the guidance of a consulting staff, assume the full duties of practicing physicians. Clinical demonstrations replace lectures almost entirely, and students spend most of their time attending and studying selected patients.

In order to impress upon the student that, as a physician, he is responsible for his patient, Doctor Lucia said, he not only takes care of the patient assigned to him in the clinic, and accompanies the patient to special clinics for consultation, but also assumes direct charge of the patient should he be transferred to the hospital proper.

University of California Clinical Method Proves Successful.—The success of the University of California Medical School's plan of training senior students under conditions approaching those which they may expect to meet in the practice of medicine is attested by the frequent return of graduates to spend additional time in the University's clinic, according to Dr. Frederick S. Bruckman. Doctor Bruckman, assistant clinical professor of medicine, made this appraisal of the success of the University's system in a report to the *Journal of the Association of Medical Colleges.*

In the out-patient clinic of the University of California Hospital, Doctor Bruckman explained, senior students are trained in the care of patients under the supervision of a medical staff. In addition to the opportunity which this provides the student of participating, under supervision, in the actual practice of the profession for which he has prepared, the plan assists the student in gaining an understanding of the problems of the patient as well as of the physician. The success of the system is also attested, Doctor Bruckman said, by the fact that many graduates of the school refer eligible patients to the clinic for treatment in cases which cannot be accommodated by the health services of their local communities. A large proportion of the patients cared for at the clinic come to it from areas outside of San Francisco.

Institute on Health Draws Many People.—More than three hundred persons, from various parts of California, attended the Institute on Community Health Education, held on the Los Angeles campus of the University of California. The affair was sponsored by the Los Angeles Tuberculosis and Health Association, and was conducted by Dr. Ira V. Hiscock, professor of public health at Yale University, and a member of the Summer Session faculty at Los Angeles.

All phases of health education were considered at the meeting, which continued for three days. The organization of a balanced community health education program was outlined by Doctor Hiscock. The value of the radio, motion pictures, newspapers, exhibits, and group contacts, were considered.

Rosenberg Gift Provides Vital Health Study.—Through the generosity of the Rosenberg Foundation of San Francisco, the University of California is to be equipped with a laboratory for the study and control of a condition in the rodent population of the state known as sylvatic plague. The Foundation has contributed a total of $24,000 for the study, $14,000 of which is going into the construction of the laboratory building and the remainder into research and personnel. The building will be located immediately east of the present building of the Hooper Foundation for Medical Research, a part of the University's medical center in San Francisco.

Thus, through the generosity of two pioneer Californians, George Williams Hooper and Max Rosenberg, the University is permitted to make a thorough study of a particularly vexing public health problem. The Hooper Foundation has effected the control of a number of public health hazards, among them the dread botulism poisoning. The Rosenberg Foundation is now to supplement this work with a well-equipped isolation laboratory for the control of a widespread rural health hazard, this laboratory to be staffed and administered by the Hooper Foundation.

Work on the laboratory building has already begun and should be completed by October 1. It will include a two-story section 12 feet wide by 36 feet long, and a one-story section 10 feet wide by 18½ feet long. It will be given over particularly to the study of the plague-carrying flea.

New Measuring Rod for Community Health Services. The American Public Health Association, 50 West Fiftieth Street, New York, on August 8, issued an appraisal form for local health work. The present 200-page document is the result of studies in measuring community needs and community health activities by committees of the Association which have been continuously engaged in this work for eighteen years.

The Appraisal Form is primarily a measuring rod for community health services. Through the use of a carefully arranged survey schedule the principal health problems of the community are brought to light and defined. The program of community health service in the several fields is analyzed against this background of social and health conditions. The health services as performed are studied in relation to the need, with the result that the relative adequacy of public health work is judged with some consideration of the magnitude and type of local problems.

Heretofore the Association has issued separate schedules for urban and rural work. Advances in rural health practice in the last few years, however, have been so great that the Association believes that issuing separate schedules for the measurement of urban and rural health service tends to accentuate the differences in practice which are rapidly disappearing.

The Appraisal Form is divided into three major sections: a survey schedule for studying a community's health facilities, a schedule for appraising the local health activities, and a list of significant health indices. The Association urges the use of the Appraisal Form by health workers and communities to evaluate periodically and impersonally their public health programs and determine the fields in which change of emphasis may be needed for more effective work.

Western Safety Conference.—Final arrangements have been completed for the Western Safety Conference to be held at the Ambassador Hotel, Los Angeles, September 12 to 16, which promise to make it the most interesting and largely attended affair of its kind ever held in the West, according to Gerry H. Lockner, general chairman.

Reports have been received from many safety-minded organizations in all sections of the eleven western states and contiguous territory, giving proof of the wide interest in this conference which will seek the causes of preventable accidents in the home, on streets and highways, and in industrial employment. More uniform safety laws and regulations is the goal sought by the delegates who will attend the conference.

While accident prevention in such large industrial activities as mining, lumbering, motion picture, petroleum, and agriculture will be studied, there is a widespread interest in the problem of traffic safety, as is evidenced by the number of traffic officials who will attend.

Among these will be the chiefs of highway patrols from Alabama, Maine, Delaware, Iowa, Louisiana, and New Jersey, although from states outside the conference territory, indications give such promise of concrete results that safety-minded leaders from many other states have declared their intentions of attending. The states of California, Oregon, Washington, Montana, Wyoming, Idaho, Nevada, Utah, Colorado, Arizona, and New Mexico, as well as the territories of Alaska, Hawaii, British Columbia, and Lower California will be well represented by leaders from all walks of life.

Sociedad Mexicana de Historia Natural.—The scientific world celebrates this year the centenary of the cellular theory which was founded by the German botanist, Mathias Jacob Schleiden, and by the zoölogist, Theodor Schwann, a hundred years ago. To commemorate this event which, according to E. B. Wilson, the famous cytologist, has had the same far-reaching consequences as the theory of evolution, the Mexican Society of Natural History (Sociedad Mexicana de Historia Natural) resolved at their meeting, May 6, to publish a special volume which would contain papers relating to problems of the cellular theory and kindred subjects.

The committee, composed of Professor Enrique Beltrán. Dr. Alfonso Dampf, and Ing. José R. Alcaraz, respectfully submits the resolution to the learned sister societies of the world and begs to invite all biologists interested in the cellular theory to collaborate in the preparation of the volume. The paper which, according to the jury, is the outstanding contribution will be awarded the Schleiden-Schwann medal of the Mexican Society of Natural History. The terms of the contest are given below. Every cytological paper is welcome, but only those which have a direct bearing on the theory will be judged.

Excerpts from the rules follow:

1. The Mexican Society of Natural History (Sociedad Mexicana de Historia Natural) invites all scientists of all countries to participate in the formation of a commemorative volume, which will celebrate the centenary of the foundation of the cellular theory by Schleiden and Schwann, and to take part in it by submitting manuscripts.

2. The scope and extent of the papers is not limited. Contributions to the history of the cellular theory are welcome, or analytical studies about its influence on modern biology, or a presentation of actual views, in an objective or a critical manner. The Society invites discussions of the foundations of the theory, using concrete cases, *i. e.*, tissue culture, or problems like polynuclear cells, unicellular and pluricellular organisms, or problems taken from embryology, etc.

3. The number of pages in the manuscripts, which may be written in English, German, French, Portuguese, Italian, and Spanish, is not restricted, nor the number of illustrations, which must be suited for modern reproduction methods.

4. The final date for acceptance of papers is January 31, 1939. Manuscripts must be sent registered to the following direction: Sociedad Mexicana de Historia Natural, Concurso del Centenario de la Teoría Celular, Apartado Postal 1079, Mexico, D. F., Mexico City. . . .

Railway Surgeons to Meet in Chicago.—The twenty-third annual meeting of the American Association of Railway Surgeons will be held at the Palmer House, Chicago, September 19 to 23, 1938.

This association includes members in practically every railroad company in the United States.

An extremely interesting and highly profitable program has been arranged and all physicians and surgeons are invited to attend the sessions of this meeting as guests of the organization.

A cordial invitation for you to attend is extended by Dr. Harvey Bartle, President of the Association. Complete program and information regarding the meeting and the exhibits may be secured by addressing Mr. A. G. Park, Convention Manager, the American Association of Railway Surgeons, Palmer House, Chicago, Illinois.

University Plans Laboratory to Battle Plague.—Energetic and widespread action against sylvatic plague, a dangerous bacillus infection which is now veritably sweeping through the rodent populations of the western states, has been undertaken by the University of California with the proposed construction of a sylvatic plague laboratory on the campus of the University's medical school here. The plague constitutes a definite threat to humans, although, according to observations and studies thus far made, it appears to lack the virulence of other contagions that have appeared in the West in the past, such as bubonic plague.

The laboratory, which will be erected immediately contiguous to the Hooper Foundation for Medical Research, a part of the medical school, and will concentrate on the rodent fleas, the principal carriers. Both the State and the University have been active in the campaign against sylvatic plague for some years past. All interested agencies have formed a Sylvatic Plague Committee, which has devoted itself to the collection of evidence of this plague everywhere on the American Continent and is taking measures to combat it. Antiplague serum is being kept constantly on hand at the Hooper Foundation.

Four nonfatal human cases of the plague have been bacteriologically proved thus far and there is strong evidence that a fifth case was infected with the plague bacillus. The plague has taken a considerable toll among the rodent populations of the state, the infected fleas being found on squirrels, chipmunks, chickarees and other forms. The Hooper Foundation has counted thirteen rodents and rodent varieties that suffer from spontaneous plague, the list including squirrels, marmots, chipmunks, prairie dogs, mice, and rats.

It is generally believed that the west coast became infected in the course of the pandemic of 1894, which originated in Hong Kong. It is presumed that rats conveyed the seed to the shores of California and spread it to the squirrels. It has now reached Montana and appears to be working eastward.

University of California Men Present Papers at World-Famed Congress.—Seven members of the University of California faculty were given the privilege, personally and otherwise, of addressing a world audience at the International Physiological Congress in Zurich, Switzerland, in August. Among them was Dr. Herbert M. Evans, director of the University's Institute of Experimental Biology, who detailed late developments in the study of vitamin E, the "fertility vitamin." Doctor Evans discovered this vitamin in his laboratory in Berkeley sixteen years ago. A synthesis of the vitamin, manufactured in the East, was found recently to be capable of producing fertility in rats.

Doctor Evans' paper was collaborated in by Dr. O. H. Emerson and Dr. G. A. Emerson, both research associates in the Institute. The paper was on the chemistry of vitamin E and the structure of Beta and Gamma tocopherols.

The first University paper to be presented was by Dr. C. L. Connor and Dr. I. L. Chaikoff of the division of pathology, University of California Medical School, and concerned the experimental production of fatty livers and cirrhosis of the liver and their relation to similar conditions found in man. Neither Doctor Connor nor Doctor Chaikoff were able to attend the Congress, but the paper was included in the record.

Another paper was presented personally by Dr. C. D. Leake on the subject, "Concentration Effect Relations of Common Inhalation Anesthetic Agents." Doctor Leake is professor of pharmacology in the University Medical School in San Francisco.

Dr. Matilda M. Brooks, research associate in biology on the campus at Berkeley, presented a paper on the mechanism of methylene-blue action on hemoglobin derivatives.

The Congress, held once every three years, is believed to be one of the most important of its kind in contemporary medicine. The last meeting was held in Leningrad and Moscow, one of the palaces of the late czar being utilized for some of the meetings.

First Western Diabetic Camp Proves Success.—Sunshine and fresh air, in the generous portions provided by recreation camps, have proved their efficacy in the treatment of diabetes. Not only do they point the way to a definite decrease in the insulin requirement, but they provide a normal regimen of healthful outdoor sport, with a minimum of scientific care.

This has been proved in the first diabetic recreation camp in the West, conducted by the Division of Pediatrics of the University of California Medical School at beautiful Las Posadas state park in Napa County. The camp was under the personal direction of Dr. Mary Olney, who was selected for the post by Dr. Francis Scott Smyth, head of the division, for her outstanding work with diabetic children.

For a period of two weeks Doctor Olney, nineteen child patients of the hospital—four boys and fifteen girls—and a staff of technicians, maintained the camp without curtailment of any of the activities enjoyed by normally healthy children, with the exception that the little ones were on a special diet and insulin treatment. In the effort they were assisted by the State Forestry Department; Miss Jean Stewart of the University's Agricultural Extension Service; Miss Laura Nichols, graduate nurse of the University of California; Mrs. A. S. Lazarus, technician, division of pediatrics; Gladys Guinau, director of the San Francisco Precita Valley Community Center; and Isaac Arnowitz, a medical student of the University. The latter two acted as recreation leaders, and were free to admit that the little patients kept them busy.

While the success of the camp has prompted plans for its repetition next year on an even larger scale, it is hoped that civic-minded organizations or individuals will become interested in it in greater numbers in order to provide administrative, recreational and routine assistance. This would leave the University's Medical School free to attend to medical and dietary supervision. The generous response to the camp needs this year by friends of the University indicates that an even more satisfactory and beneficial arrangement will be made for the 1939 camp.

Press Clippings.—Some news items from the daily press, on matters related to medical practice, follow:

Propositions Win Place on Ballot

Twenty-five Issues Get Under Wire but Two Face Court Test

Sacramento, Aug. 10.—(AP)—At least twenty-three and possibly twenty-five propositions will appear on the November 8 election ballot.

Deadline for qualifying proposals with the Secretary of State was midnight and, Deputy Secretary of State Charles G. Hagerty announced today (August 12), six initiatives, three referendums and sixteen constitutional amendments got under the wire.

Court Fight Due

Two of the initiatives await a State Supreme Court decision as to whether they qualify. They are the measure proposing a $30 weekly pension to all retired persons over 50 and a single tax measure to replace the 3 per cent sales tax.

The qualified measures include:

The Olson and O'Donnell tideland oil bills and the Garrison Revenue Bond Act, held up by referendum.

Sardine Initiative

An initiative placing sardine fisheries under jurisdiction of the State Fish and Game Commission. Regulation of

strike picketing and prohibiting sitdown strikes; creating a State Highway and Traffic Safety Commission separate from the motor vehicle department. Prohibiting vivisection of impounded animals.—Los Angeles *Times*, August 12.

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State Voters Set Record at 3,437,242

California's registration for the August 30 primary totals 3,437,242.

The total breaks all previous records and places the voting strength of the State high on the list in the country.

The Democratic registration of 2,022,726, 7½ per cent higher than it was at the time of the presidential election in 1936, is 779,324 in excess of the Republican total of 1,243,402 voters.

The registration totals were compiled from the fifty-eight counties of California by the Associated Press.

183,421 Over 1936

The primary registration setting a new record in the State's history is 183,421 in excess of the registration for the presidential election two years ago.

The Democrats gained 140,712 over their Republican rivals since 1936. The Republican total was 105 less than the enrollment of two years ago.

An inescapable conclusion is reached from the new registration figures: The fact that the influx of transients, dust bowlers, and others from Midwestern areas and from the Southwestern states is largely responsible for the increase in Democratic registration.

The huge California registration places this State in the fifth position among the states in registration from all available figures. New York, of course, tops the list, with Pennsylvania, Illinois and Ohio next in line. . . .

The Democratic registration represented 58.83 per cent of the State total and the Republicans, 36.17 per cent. Two years ago the percentages were 57.74 and 38.44, respectively.—San Francisco *Chronicle*, August 12.

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Western Hospital Chiefs Open Stanford Meeting

With ninety-three hospital executives in attendance, the first Western Institute for Hospital Administrators opened yesterday at Stanford University, under sponsorship of the American College of Hospital Administrators, the Association of Western Hospitals, the Association of California Hospitals and the Western Conference, Catholic Hospital Association.

The Institute, to continue through August 19, will be conducted with morning and evening sessions at Stanford University and afternoon field trips to various San Francisco and Bay Area hospitals for demonstrations of new hospital equipment.

Welcoming Speeches

At the opening general session the group was welcomed by Dr. Benjamin W. Black, director of Alameda County institutions and director of the institute.

Other speakers included Rev. R. T. Howley, archdiocesan hospital councilor; Dean J. Hugh Jackson of Stanford University; James A. Hamilton, first vice-president of the American College of Hospital Administrators; Andrew C. Jensen, president of the Association of Western Hospitals; Raymond D. Brisbane, president of the Association of California Hospitals; Thomas F. Clark, executive secretary of the Association of Western Hospitals, and Gerhard Hartman, executive secretary of the American College of Hospital Administrators. . . .—San Francisco *Chronicle*, August 9.

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Threaded Radium "Seeds" Used as Cancer Treatment

New York, Aug. 2.—(AP)—Invention of radium threads, a new method of treatment for cancer, was announced today at the New York City Cancer Institute.

The threads are made by taking ordinary "sutures" used by surgeons for sewing up wounds, and inserting in them, spaced like beads, tiny gold or silver "seeds." The seeds, long used in cancer treatment, contain radon, the gas from radium, which gives off exactly the same rays as radium.

The seeds are so small that the surgical radium thread is smooth enough to be sown into, or around the cancer. The advantage for the "thread radium," according to its originators, Dr. Fred Hanes and associates, is the certainty of placing the burning substance in precisely the best locations.

The seeds are spaced, as a rule, from a half to one centimeter apart.

Another use of the radium thread is for cancer of the stomach. The threads are placed in rubber bags, lining it so as to cover a surface about equal to the cancerous area of the stomach. The bag is deflated, swallowed, inflated and the patient has the radium threads more or less blanketing his "lesion."

The radium threads are sterile, like ordinary surgical sutures, and hence safe for use in any part of the body.

The announcement stated that the new method has proved exceptionally valuable in treatment of mouth cancer. The patient can continue to eat and drink without much inconvenience and does not have to stay in, or near, a hospital bed.—San Francisco *Chronicle*, August 3.

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Thousands of Jobless Rush to California

Heavy influx of unemployed from other parts of the United States is creating a serious economic problem in several sections of California. Particularly is this true in Kern County, where a recent survey showed that approximately one-third of the population is receiving relief aid of some sort.

To protect bona fide residents of the State, California Citizens' Association, a state-wide organization, is protesting a threatened move of Federal agencies to provide relief jobs for migrants until Californians entitled to aid are provided for.

Figures are submitted by the association to show that in the last two years more than 200,000 persons seeking manual work have entered California. Border checking stations report a continuing influx of about 7,000 monthly.

The situation is bad enough at the present time. But the real danger lies ahead. What is to become of the vast throng of migrants when relief quotas have become exhausted?

Both State and Federal authorities should take steps to halt the influx of unemployed before it is too late. Only prompt action can avert wholesale suffering by unfortunate, ill-advised persons who come here seeking jobs when relief rolls already are crowded with persons unable to find private employment.—Pasadena *Star-News*, July 30.

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Postal Health Plan Lauded by Physician

San Francisco Bay Area Employees Set Example with Insurance System

The Post Office Foundation, a coöperative organization for San Francisco Postoffice employees, clerks and carriers, was praised today by Dr. Philip King Brown as a distinguished example of what can be done in low-cost hospitalization insurance.

The foundation here has 1,078 members, has existed since 1932. An Oakland foundation was organized in the last six months, embracing Oakland, Alameda and Berkeley Postoffice employees. The only other such foundations are in New York City, Milwaukee, Philadelphia and Dallas, according to M. H. Band, secretary of the San Francisco group.

Members are entitled to twenty-eight days a year hospital care at $3.50 a day, $15 for operating room expenses, and ambulance service. The San Francisco Post Office Foundation averages seventy cases a year, and the cases average eleven days in the hospital, each, Mr. Band said.

When the San Francisco group was organized in 1932, there were no age restrictions, but now no one over 40 is eligible to join. Cost of the organization, Mr. Band said, is about $2,500 a year. The dues are collected by three collectors, who work at the Postoffice, and receive 5 per cent of their collections as compensation.

Doctor Brown, who has been a worker in behalf of health and hospital insurance for some years, contrasted the cost of hospitalization insurance under such a coöperative plan, and the higher cost under a policy from a commercial insurance company. He opposes letting insurance companies "or any middleman" into the field of health insurance.—San Francisco *News*, August 8.

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Social Disease Clinic to Open

The Bay Area's first coöperative clinic for the treatment of venereal diseases will be opened in Oakland at 282 Eighth Street about October 1, it was announced yesterday by Dr. W. M. Dickie, director of the State Department of Public Health.

Having received approval of the public health committee of the Alameda County Medical Society headed by Dr. George Reinle, the Alameda County Health Department and all city health departments in Alameda County, the clinic will be operated under direction of Dr. M. N. Ashley, Oakland city health officer.

According to present plans it will be opened six days and evenings a week for treatment of patients unable to pay for private medical care.

Remodeling of the municipally owned building will be financed by the city, and the State will provide clinic equipment and personnel. Oakland's public treatment center for treatment of venereal diseases, maintained at the present time at 3105 Grove Street, is expected to continue.

The project is the first for which the State is requesting funds from the United States Public Health Service out of the $103,791 recently allocated to California for venereal disease control under provisions of the La Follette-Bulwinkle bill.—San Francisco *Chronicle*, Juyl 29.

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Time Payment Plan Urged for Hospital Bills

Physicians Debate Proposal at Conference at Stanford University

Installment plan payment for hospital care was debated by physicians at the Western Institute of Hospital Administration at Stanford University today, after R. D. Brisbane, superintendent of San Francisco's Sutter Hospital, urged hospitals to meet patients half way by extending credit.

Declaring that "hospital bills are undesired and often unexpected," Mr. Brisbane urged an "intelligent policy of installment paying for patients who cannot pay large bills on short notice."

Dr. George H. Kress, secretary-treasurer of the California Medical Association, advocated group hospital insurance to meet the shock of unexpected expense.—San Francisco *News*, August 12.

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Million Dollar Ultra-Modern 200-Bed Hospital Is Planned for Beverly Hills

Adequate hospital facilities for Beverly Hills and environs will be embodied in a $1,000,000 ultra-modern structure to be erected at Maple and Alden drives in Beverly Hills.

This announcement was made yesterday following the incorporation of the Beverly Hills Hospital Association which is planning to build a 200-bed institution. Option to the site has been taken, it was said.

Plans for the hospital are being supervised and the medico-business board is being advised by a group from the California Hospital, including Superintendent R. E. Heerman.

Board of Directors

The board of directors of the association is composed of Mayor Edward E. Spence, City Treasurer Horace Blackman, William Powell, film actor; Stanley S. Anderson, Frank Burnaby, William J. Gage, Leland P. Reder and Wiley N. Caldwell, all of Beverly Hills; R. E. Heerman, superintendent of California Hospital; Howard Burrell, T. R. Knudsen, Martin Nelson, F. C. Noel and N. E. Olton, all of Los Angeles, and John Henry of Pasadena.

Stressing the need of a hospital for the Beverly Hills district, directors of the hospital association pointed out that more than 9,000 persons from that area sought hospital service last year. Several deaths occurred during 1937 because of the inaccessibility of hospitals, they declared.

Staff of 250 Needed

The hospital will require a staff of at least 250 regular employees and 100 special nurses. The institution will be operated on a non-profit basis and all officers and directors will serve without pay, it was stated.—Los Angeles *Examiner*, August 15.

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City Starts Fight on "Hospital Chiselers"

Five Accused of Wrongly Getting Free Aid

From now on, San Francisco's "hospital chiselers" are going to be yanked into jail.

"Hospital chiselers" is the term applied by Director I. A. Richardson, of the city's Bureau of Delinquent Revenue, to those persons who get treatment at the San Francisco Hospital, swear they're paupers, and don't pay—but all the time, they've got money enough to pay in full.

Yesterday, Richardson appeared before Municipal Judge Hugh Smith, swore out five warrants against persons he designated as such "chiselers," and broadcasted a warning that "hundreds more will be arrested."

Richardson's action was the outcome of extensive subrosa investigations into innumerable cases treated free at the city hospital. . . .

Heretofore, Richardson explained, the city and county has proceeded against what he terms "chiselers" only in civil suits. However, the practice has grown so outrageous, he says, that convictions will be sought under a misdemeanor charge, which carries a penalty of $500 fine or six months in jail.—San Francisco *Examiner*, August 11.

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Chiropractors Are Told Value of "Ads"

One thousand delegates to the convention of the American Progressive Chiropractic Association were winding up the meeting today with a clinic for children and a baby show.

Dr. Clement J. Joynt, addressing the convention at 920 Venice Boulevard, advocated use of newspaper advertising to keep the public informed as to the newest methods of healing.

"The American public owes most of its health and thousands of lives to the newspapers," he said. "It is the duty of every specialist in the healing arts to advertise. California is known for its advertising quacks, but this is because there are so many healing cults in the State. However, the death rate here is low, so there is some justification in the claim that advertising is a benefit."

A demonstration on the proper way to sit was part of the convention program.—Los Angeles *Herald*, August 6.

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Health Is Social Problem*

It is encouraging that those physicians who are standing against the only possible method of meeting the social (not the medical) problem of illness in the middle-income group are at least recognizing the existence of the problem and proposing ways to meet it. That these are all wrong ways, since they are all directed to something else than the real problem, is not necessarily discouraging. For, until something is done which does meet the real social (not medical) problem, nothing else will satisfy the public need and demand, or be accepted as a permanent solution. Even a false start, therefore, is a start.

The makeshift most popular among physicians is to meet the hospital part of the problem by insurance, in the hope thereby of escaping the insurance method of meeting the other two parts. The idea is that if the hospital costs are already provided for, by previous payments to the insurance fund, there may be something left, now or later, from which the physician can collect his part individually. Thus the sacred principle of individual payment (not treatment; that is individual anyway) will be preserved.

And if, in many cases, the physician will still fail to make collections individually, he would rather lose the money than be paid otherwise than individually, or from any but the patient's personal funds. How the third problem of the grocer and the landlord shall be met, the physician does not regard as his concern. The reason is that he still regards the problem as medical, and paying the rent is not a medical problem. But it is a social one, and is an indivisible part, often the major one, in the social incidence of illness. It is only when we regard the problem as a social whole that we recognize the medical part as only one of the three factors in it, inseparable socially (not medically) from the other two.

Another plan, just voted by the Denver County Medical Society in Colorado, and already tried in numerous other places, has the same purpose in view. That is to separate the medical from the other factors of the problem and to preserve the still sacred principle that each person shall pay individually the medical part of the costs of each of his own illnesses, in proportion to the duration and severity of that illness and the treatment it requires. If he can insure the hospital part of the costs, in advance, and pay the grocer and the landlord out of unemployment insurance, so much the better. But the medical part of the costs must not be averaged, by insurance or any other averaging device.

The Denver scheme, which Doctor Haggart, president of the Medical Society, mistakenly thinks is "unique," is to provide medical service, in each case by the physician of the patient's own choice, under a plan of subsequent "repayment." Even if this is partially averaged, on the patient's "group," it is only half way toward the insurance principle, since the repayment is to be accumulated afterward, and is to be in proportion to the particular illness. If it is to be individual, budgeted out of the patient's savings after he recovers, it is not insurance at all.

The danger is that these too conservative programs emanating from the medical profession may plunge us into the too radical program now brewing in Washington. In the effort to keep the business (not the practice) of medicine individual, we may find that the bugaboos of "State medicine" and "socialized medicine" have become realities. Health insurance is, of course, neither of these things, any more than fire insurance is. But a huge bureaucracy from Washington may easily become both of them. It may usurp into the Federal Government too much of what should be the states' function of public health service. And it will be under almost irresistible temptation to intrude itself into what should be the private function of individual medical service to the sick. It is too easy to tap the supposedly inexhaustible Federal funds, to regiment physicians into salaried public employees and to charge to the taxpayers what people should pay for themselves.

The problem is not of the indigent. They pay the grocer and the landlord out of the public funds now, and the

* By Chester Rowell.

physician should be paid out of the same funds, instead of working as he largely does now, for nothing. Neither is it of the prosperous. The present system is working well for them and nobody proposes to change it. It is of the employed wage earners and others in the same income brackets, who are self-supporting now, in everything but the costs and losses of serious illness, and are perfectly able and willing to bear their full share of the average cost of illness, too. The other costs of life average themselves, all but the risks of fire and of premature death, and these they distribute among the whole group, by insurance. That is likewise the only way to distribute, by averaging it, the unaverage costs of always unpredictable illness. There is no need of regimenting the science or deindividualizing the practice of medicine, to do thus, nor of reducing physicians—except for the indigent on relief—to salaried state employees. But there is need of insuring the payment the same as is done with the other unaverageable costs of life. The public does not pay anybody's fire insurance premiums. It does pay everybody's fire department. The same distinctions exist in the two branches of health and medical service. — San Francisco *Chronicle*, August 20.

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Typical New Deal Methods

For a good many months the New Deal has been going out of its way to point out how the medical profession in general has failed to care adequately for the people, and many of the administration spokesmen have declared for some form of socialized medicine. Most of the proposals begin with impassioned declarations of the inadequacy of care provided at present, and would end with the Federal Government having a very large share of control over the medical profession.

The American Medical Association has, of course, opposed most of the government's attempts to encroach on what they term the fundamental principle that "the physician must be master in the house of medicine," and in the District of Columbia they have very strenuously objected to the operations of an organization known as the Group Health Association, which is a coöperative movement, organized by employees of the Federal Government, and designed to secure medical care for its members at a low cost.

Now, we do not claim perfection for the members of the American Medical Association. Doubtless they have been guilty of many mistakes in the past, and it is probably true that they will make many more. But it is as a perfect example both of New Deal methods of getting what they want, and of New Deal hatred of opposition and criticism in all forms, that the present case is cited.

For when the administration saw that the American Medical Association opposition to this Group Health Association was likely to continue and grow in effectiveness, they took a typically drastic course, and the Department of Justice, acting through its publicity-seeking official Mr. Thurman Arnold, decided to institute anti-trust proceedings against the activities of "organized medicine." Thus, instead of urging their side of the argument on its merits, the government, to press its point, has taken criminal proceedings against an association which has opposed its will in this instance.

Again the country has an example of the assumption of infallibility upon the part of the present administration, and a fanatical hatred of all opposition that has grown to such proportions that now opponents are indiscriminately charged with a violation of the law in an attempt to make them fall in line. Both the autocratic despotism of European governments, and the intimidation practiced by petty ward bosses who threaten the revocation of necessary licenses, are all too evident in this latest action of the Department of Justice, for that action to meet with the favor of any sober-thinking citizen.—San Francisco *Argonaut*, August 12.

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Keep Government as Far Removed as Possible from Medicine

The problem of health insurance is one of the most pressing before us today. The squabble in Washington between medicos opposing and those supporting coöperative organizations through which the government employees may pay so much a month and be assured of medical attention when they need it brings the matter to the public attention and may be a step toward the ultimate solution of the problem.

The main difficulty seems to be to avoid paternal governmental action by which socialized medicine will be fastened upon us whether we wish it or not.

Whatever is done in this line, it appears, should be entirely voluntary. We should not be forced to pay additional taxes for the support of such organizations.

If a man or woman wishes to join with others for mutual insurance against illness, we can see no reason why he or she should not be allowed to do so.

But when certain groups insist that the country or the state or the national government shall provide this service through any procedure that will force all of us to pay more taxes, we shy at the proposal because of numerous factors involved.

One of the most serious factors is the political graft that has almost invariably accompanied such procedure.

Persons well able to pay for their own medical care have too often been granted free service at government-supported hospitals. Favoritism is a parasite for which we have found no remedy. We are not likely to find the remedy as long as politics is what it is.

So many other factors are involved in this problem that the average man cannot untangle the complicated mess.

We believe that our best procedure is to keep government as far removed from medicine as possible.—Petaluma *Argus-Courier*, August 9.

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An Expensive Proposition

The taxpayers of Siskiyou County are to be asked (or should we say required) to shoulder an additional expense for enlargement of the county hospital at Yreka.

At a meeting of the supervisors, Yreka doctors and a few taxpayers held in Yreka Tuesday plans formulated months ago for the construction of a tuberculosis sanatorium to be operated in conjunction with the county hospital at Yreka were scuttled.

The Yreka doctors present at the meeting and who voiced their opinions favored an addition to the present county hospital building, instead.

The need for more room at the hospital is occasioned by the practice of accepting "pay patients" at the institution and thus providing a convenience for Yreka doctors in their private practice.

Of course, it is claimed that any of the doctors of the county are entitled to the same privileges as the county seat medicos. Nevertheless, it is obvious that the advantage is all in favor of the Yreka doctors.

The *News* has no quarrel with the Yreka doctors except that it is not right that the taxpayers should be asked to contribute a fund for enlargement of the hospital for the convenience and benefit of those doctors.

Of course, patients of the doctors benefit also. But if there is need for a private hospital at Yreka it should be provided by private capital. The taxpayers should not be asked to provide it.

The county hospital was originally built to care for poor people of the county who could not pay for treatment of their ills. However, a fine, new building was constructed a number of years ago and it has been used regularly since then for the accommodation of "pay patients." Now it is proposed to still further enlarge the building so that more "pay patients" can be taken in.

It would not be so bad, but still unwarranted, if all the "pay patients" paid their hospital bills. But it is well known that they do not.

McCloud, Weed, Scott Valley, Hilt and Dunsmuir have hospitals that are being operated as private institutions, asking nothing from the taxpayers. It is not fair to them for the county to operate a hospital at county expense where "chiselers" can take advantage of a circumstance that an honest person would be willing to pay for.

The *News* believes the county hospital should be used exclusively for poor people who cannot afford other treatment of their ills. If "pay patients" were not received it would probably not be necessary for taxpayers to provide a fund for enlargement of the building.—Dunsmuir *News*, August 12.

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Five Dogs Found Rabid

The local rabies menace increased yesterday, when five mad dogs were reported caught in various parts of Santa Clara County, according to Ralph Simmons, county health inspector.

There was much consternation on the Stanford campus when a stray dog caught there was proved rabid, Simmons said. The dog was taken to the Palo Alto animal shelter, and a positive identification of rabies was made by Dr. Frederick Proescher.

Doctor Proescher also reported a positive test on a dog owned by Albert Olsen, Homestead Road, and a similar report was made by Dr. H. G. Deisner of Sunnyvale on a dog owned by J. Caviglia, Hollenbeck Road. Caviglia's dog bit one person before it was caught.

The heads of two other dogs, one from Homestead Road, the other from 1678 Monroe Street, Santa Clara, are being examined for rabies. Both animals showed positive symptoms of the disease.

"In spite of all the warning that has been given, some dog owners are not observing the quarantine," Simmons

said. "Coöperation of every dog owner is needed. No dogs should be allowed to run at large, a menace to other animals and to the general public."—San Jose *Mercury-Herald*, August 19.

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Placing the Blame

Disregard of owners of dogs and cats for the quarantine, and apparent indifference to the welfare of the public and safety of their own pets is responsible for the continued menace of rabies in San Jose and Santa Clara County.

The county and city health departments have appealed to the civic spirit of the community; the State has ordered a strict quarantine. Not one in a hundred has even made a pretense of obedience or coöperation, though a current report from the city and county health departments states that 'rabies is still prevalent and remains a serious menace." And will be until all dog and cat owners do their part by keeping their pets confined on their premises and away from visitors and stray dogs.

If everyone obeyed this quarantine ordinance strictly for two months, rabies would be entirely stamped out, declare the two health departments. As it is—well, yesterday a horse and a dog, both suffering from rabies, had to be shot, while a suspect dog was taken to the city pound for observation.

During the more than nine months since the disease became so prevalent that the State took cognizance and put the city and county under quarantine, 301 persons have been bitten by dogs—52 of them by rabid animals—28 persons with wounds have been contaminated by rabid dogs and 86 are or have been undergoing the Pasteur treatment, while, by clinic and microscopic tests, 107 dogs have been definitely proved to be rabid.

Just because a dog has a pedigree or is a pet doesn't make him immune from rabies. Nor does it lessen the owner's responsibility for obedience to the law. Be a good citizen and help stamp out rabies as a service to the community and for the safety of your pets.—San Jose *Mercury-Herald*, August 19.

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Why Not Face It?

The administration's trust busters have made themselves ridiculous by jumping the American Medical Association as a trust. The doctors make no commodities. They sell services. If they are anything within the Government's interstate commerce powers, they are a labor union. The acts of which the Government complains, in the association's discouragement of a federal employees' panel health service, are the methods followed by labor organizations.

The trust busters are trying to let go the tail of this bear they grabbed so innocently. Yet, instead of trying to save face, they might bring some beneficial results from their mistake.

They might, by frankly facing the issue, disclose to public opinion that organized labor is encouraged to use methods to an extent to which the organized doctors' use of those methods the trust busters have condemned. They might put the light on the fact that industry is flatly forbidden to do at all what within bounds might be of public benefit, and which labor unions are encouraged to carry to excess.

The trust busters might discover that the persons of small income who cannot meet the high cost of illness are the same who cannot meet the high cost of housing and living. They might discover that persons ruined by the cost of illness then cannot make payments on the Government loans made to encourage home building. The loans do not make housing any less costly but do make it easier to get into debt. Government might also make loans to pay the cost of illness, but, if the borrowers did not pay, could not foreclose on the operation as may be done on the home.

The doctors might discover a method of assuring medical care to small income groups and also assure that they get paid for their services. Organized labor might find a method by which to reduce labor costs per unit of housing so that more persons could afford decent housing and so provide enough work to give labor bigger incomes.

The blunder the trust busters made when they went after the doctors so far has aroused humor. It might better be used as an opportunity to produce a great deal of public good, by restating the principle of equal rights to all, special privileges to none.—San Francisco *Chronicle*, August 17.

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Changes Proposed to City in Hospital Benefit Plan

Would the city be willing to help promote the recently proposed hospital insurance plan by paying toward the premium the $1.10 it costs to extend the existing municipal hospitalization benefit to each resident of Palo Alto, in the event the citizens were willing to forego the latter in favor of the former?

Such a proposition was broached to the city council last night by Dr. Granville Wood, member of the Palo Alto Medical Society's committee which recommended the new insurance arrangement.

Reference of the question was made to the council's committee on audits and accounts.

Doctor Wood briefly outlined the proposed plan, which he characterized as "very fine," since it would make possible hospitalization benefits in case of illness, at a cost of $10.20 a year.—Palo Alto *Times*, August 9.

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Urge Non-Profit Plan for Medical Aid in Hospitals

Establishment of the mutual, non-profit plan for medical aid of the Insurance Association of Approved Hospitals in Santa Cruz County had been projected yesterday with approval of the plan by the Santa Cruz County Medical Association in session at Rio Del Mar club.

Assistance of the Alameda unit in setting up a county unit will be sought and $500 raised to pay the necessary expenses. The plan was first adopted by the Alameda group, it was declared, and has met with success in San Francisco, San Mateo and Contra Costa counties.

Under the plan medical aid is furnished to members of groups who join in the plan, and only group units may join. Each member pays 90 cents a month, paid through a group assessment. Other members of the family may also qualify for aid by a similar payment.

Included in the services to be offered are three weeks' hospitalization for each sickness or accident during the policy year in any approved hospital in Northern California. The patient will be allowed board and room, general nursing care, operating room service, x-ray, laboratory service, material appliances, dressing, physiotherapy treatments and ordinary drugs and medicines.

Further announcements as to the setting up of the plan and its methods of working will be made later.—Santa Cruz *News*, July 20.

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Hospitalization Insurance

The Palo Alto Medical Society, backing a hospitalization group insurance plan, is flying in the face of hostile opposition of the American Medical Association, which has gone on record as opposed to socialized medicine. But in doing so the Palo Alto medical fraternity is placing the needs of the clientele above the conservatism of the profession. The decision is on the side of humanitarianism.

The plan, in brief, involves issuance of a policy under which, for a payment of 85 cents a month, the beneficiary will be entitled to twenty-eight days of hospitalization for each illness suffered during the year. The benefit would be paid at the rate of $5 a day, sufficient to cover the cost of a bed in a ward or to make contribution toward the cost of a private room, and in addition provide for x-ray, operating room, laboratory and anesthetic charges. There, of course, would be some restrictions. But the coverage bought by the small fee paid monthly would be one of unusual liberality.

The plan which the Palo Alto physicians have worked out in coöperation with insurance representatives represents the fulfillment of a hope long held by those who have viewed with disapproval the fact that too many people of the economic middle class find themselves unable to buy hospital care when it is needed.

For the wealthy, the situation offers no problem. The indigent are provided for in public and charitable institutions.

But the white-collared wage earner whose taxes support the indigent sick often finds himself in a relatively helpless plight when his turn for medical care comes.

The term "socialized" need hold no terror in this case. The very existence of a system whereby the indigent are cared for represents the functioning of a socialized plan to which we have long been accustomed. After all, it is the service offered rather than the term by which it is either glorified or damned that should determine the worthiness of any scheme.

The Palo Alto Hospitalization Group plan is not strictly a socialized scheme, however. There is nothing compulsory about it. Taxation is not a factor. The plan for its success depends upon the voluntary signing up of policyholders wanting such protection.—Burlingame *Advance-Star*, August 3.

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Each Group of 15 Workers Hires One Public Servant*

Each group of fifteen persons employed in private enterprise supports a sixteenth, who has a government job.

* Query. Under a State Medicine system what would be the proportion of lay supervisors and clerks to the number of physicians on the state panels?

That is to say, the average family contributes three and a half weeks of its income each year to pay the salary of an employee in Federal, State or local government.

This is not the total tax contribution, which is far larger. It is solely the contribution to the public pay roll.

The number of employees upon which this is based does not include relief workers, the CCC or the millions of persons who this year will receive checks from the Treasury for relief or subsidies in agriculture or elsewhere. It consists entirely of persons in regular government employment.

In this connection, regular employment is more than a figure of speech. Millions of workers in private enterprise have in the last few years been suddenly deprived of their jobs. The workers in government employment have had security. Actually there has been a large increase in the number so employed during the period in which private employment has shrunk. In the period of recession which began last year and threw more than 3,000,000 workers back onto the unemployment rolls 79,000 employees were added to the government lists.

In 1929, the high employment level, there were 47,885,000 workers employed, of whom 2,070,000 worked for the Government. The public employees represented 4.3 per cent of the total employment.

In June of this year the total employment figures were 42,955,000; of these the public employees had increased, from the 1929 figure, to 2,511,000. This meant an increase of about 25 per cent in the number of government employees in a period when private employment was declining sharply. Fewer employed workers, most of them upon sharply curtailed incomes, had to support an increased number of public servants, who had suffered little if any diminution of income and in some cases enjoyed increases.

The figures are provided by the National Industrial Conference Board report. They may be studied to advantage by workers who want secure jobs, short hours, high wages and independence of the boss, yet who are signing for an increasing number of well paid persons to boss them around.—Editorial in San Francisco *Chronicle*, August 24.

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Survey Shows 2,590,000 Persons in Public Jobs

Washington, Aug. 21.—(Exclusive)—One out of every sixteen persons now employed in the United States has a regular job with a Federal, State or governmental unit, according to a survey made by the National Industrial Conference Board, results of which were released tonight.

Job Peak in 1929

The board noted that although total employment in June of this year had slumped by 3,340,000 persons as compared with September of last year, governmental employment had increased 79,000 persons in the same period.

"Total employment in the United States reached its highest level in 1929," said the report, "when government employment accounted for 2,070,000 individuals. In June, 1938, when total employment figures showed 4,930,000 fewer workers than in 1929, government employment showed the opposite tendency, rising to a new high of 2,590,000 employees, an increase of 25.1 per cent over 1929."

Public Rolls Huge

Of June governmental employment, 1,194,000 persons were listed as employed by the Federal Government. This includes regular civilian employees of executive departments, workers for judicial and congressional offices and the Army and Navy, but does not include CCC or WPA workers. In the same month pay rolls of state and local governments carried 1,396,000 persons.

In 1929 the comparable totals were 833,000 federal and 1,237,000 state and local workers. The federal civilian pay roll for June, exclusive of the military, judicial and congressional employees, contained 857,520 persons, to whom was paid $128,071,062 during the month.—Los Angeles *Times*, August 23.

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Institutions to Be Improved

Sacramento, Aug. 23.—State Director of Institutions Harry Lutgens today revealed a $7,680,117 institutional rehabilitation program for which federal aid would be sought.

The new program, aimed at increasing facilities for caring for patients at the state hospitals, would supplement the $4,807,200 program already under way.—San Francisco, *News*, August 24.

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Public Nurses to Trace Venereal Cases: Urged by California State Health Department

Employment of public health nurses to investigate each case of venereal disease, to determine from whom it was contracted and to whom it was given, was urged on city and county health departments today by the State Department of Public Health.

The state department reported that 2,759 cases of venereal disease came under medical care in California during July—1,571 cases of syphilis and 1,188 of gonorrhea.

During the last five months 96 sources of infection and 552 persons who had been infected by patients who sought treatment, were located by public health nurses employed by the State and assigned to local health departments.

These nurses also located 1,352 patients who had stopped treatment without their physician's consent.

"Shoe leather epidemiology," is the descriptive term given the nurses' work by the state department's report, which points out "many calls are usually required before she finds the person she is seeking."

"In a misguided attempt to protect others," the report continues, "patients often give wrong names and addresses when they report the persons who infected them or whom they may have infected."

San Francisco has three state nurses, Los Angeles has two, while Contra Costa, San Bernardino, San Diego and Santa Clara counties, and the city departments in Long Beach, Pasadena and Sacramento, have one each.

During the month of July, Los Angeles County led the state in the number of venereal disease cases reported, with 735 of syphilis, 429 of gonorrhea. San Francisco was second, with 118 syphilis cases, 194 gonorrhea.

The health department pointed out that a high numerical rating of cases does not mean that there are necessarily more cases proportionately in that county, but may mean that more cases are being discovered and reported.

In accordance with regular practice, to discover all cases possible, all San Francisco's emergency hospitals are offering free, confidential Wassermann tests for syphilis from 10 a. m. to 10 p. m. today.—San Francisco *News*, August 24.

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Syphilis Tests Offered at U. C.

The University of California health center, largest of its kind in America, joined today in the campaign against venereal diseases, with inauguration of optional Wassermann syphilis tests for all new students. The announcement climaxed a two-year campaign by student leaders and *The Daily Californian*, student publication.—San Francisco *News*, August 24.

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Adding Tax to Doctor's Fee*

Editor The Chronicle—Sir: For some time past the big dailies of our cities have given much space, pro and con, as to the regimentation of the medical profession. If that becomes the law through the wise bunch in Washington, I pity the poorly housed, illy nourished and scantily clothed. Such a law has been tried in other countries, with disastrous results. If the profession is ever controlled by politicians the tax to support it will be squeezed out of every taxpayer. On top of that will be the overhead expenses for political appointees to enforce the mandates of the vicious law, as was done under prohibition. Should a citizen prefer to call in his family physician in preference to the political appointed doctor, he will have to pay for his American privilege out of his own pocket. The medical profession has always done more gratis work for the poor than any other profession in the whole country, and gratis work can't be done without overhead expense added to it.

If a layman gets into serious legal difficulties and requests the service of a lawyer, he is, in most cases, made to pay a retaining fee before he starts his legal work on the case.

If a layman went to a doctor about one of his family being seriously injured or sick and was asked for a retaining fee, he would have the whole community on his back to drive him out and have his license revoked and expelled from all medical societies. Why should the party ticket in Washington—they think they are democrats—spend their venom on the medical and dental professions and let the legal and other professions run wild as they see fit?

M. A. CRAIG, M. D.

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Migrant Woman Gouges Out Eye, Hacks Off Hand

Merced, Aug. 24.—(UP)—Medical science—pitted against religious fanaticism—saved the life today of Mrs. Ola Irene Harwell, 26, who gouged out her right eye and chopped off her left hand because they had "offended" her. On the operating table at Mercy Hospital here she verified a story told by her youthful second husband, Woodrow Harwell, 20, that she had maimed herself after a strenuous "prayer session" in the couple's one-room shanty on the Meadowbrook Farm.

Tragedy at Prayer Session

Itinerant cotton pickers who came to California four months ago, the couple, with Mrs. Harwell's two small

* This item taken from the "People's Safety Valve" department of the San Francisco *Chronicle*.

sons by a previous marriage, knelt in prayer after their evening meal last night.

Mrs. Harwell led as the quartet swayed and chanted, shouting fervent "amens." While reading from the Bible, Mrs. Harwell came across the Book of Matthew, Chapter 18, Verses 8 and 9:

"Wherefore, if thy hand or thy foot offend thee cut them off and cast them from thee. . . . And if thine eye offend thee pluck it out and cast it from thee. . . ."

Harwell said his wife suddenly announced that both her right eye and her left hand had "sinned." She got up, took a pair of scissors with her and left the room.

Then Harwell put a crude bandage on her wrist and mopped up some of the blood on the cabin floor. His wife asked him to bury the severed hand. He later told officers he placed the hand in a shallow hole near the cabin.

Harwell said he was so weak from excitement and the strain of the session that he could not follow her.

Amputates With Ax

She went outside to a woodshed. There she gouged at her eye with the scissors, then placed her hand against a concrete pipe and picked up a large lumber ax.

She swung three times before the hand fell to the ground. She then returned to the shack and, covered with blood but apparently in possession of her faculties, lay down on a bed.

Harwell said she aided him in further praying while he sent the oldest boy, 10, to the house of a neighbor, Mrs. Bessie Wilcox. She called a Pentecostal minister, who in turn hailed State Highway Patrolman Curtis Farr.

The maimed woman was taken to Merced.

Husband Is Idle

Police said the couple and their children were typical of hordes of itinerants from the Oklahoma and Texas "dust bowl" areas who have swarmed into California in search of work.—San Francisco *News*, August 24.

LETTERS

Subject: Editorial from Santa Ana Register concerning free medical service.

Santa Ana, Cal., August 24, 1938.

To the Editor:—We are mailing to you, under separate cover, a marked copy of the Santa Ana Register. The article marked speaks for itself as to the feelings of our editor here relative to medical service and practice. We have reprinted this editorial in full in the "Bulletin of the Orange County Medical Association," and felt that perhaps others may want to comment on it in their publications, as it is a very timely article.

809 North Main Street. Very truly yours,
J. L. Maroon, M. D.

* * *

Sharing the Comforts of Life*

Free Medical Service

With the President advocating an extension of the Social Security Act and free medical service, and a contributor contending that voters should write to their Senators demanding an Act for free medical service, the subject becomes worthy of consideration.

The contributor contends that the American Medical Association is a monopolistic group and must be broken up. Does the contributor know what a monopoly is? If there is anything that is not a monopolistic group, it is the medical profession. Great doctors are different from great businesses. When a doctor makes some new medical discovery that will be of benefit to his fellow doctors, he immediately makes it public to the world. He often even discusses it before he masters the subject himself. Not so with private business; it keeps it a secret and gives it a patent.

And in contrast with free public schools, where the teachers are inbred and can only teach what the mass, or majority, want taught, the doctors give of their time and energy to instructing the young doctors so that they also may become efficient. They certainly are in great contrast to the monopolies of government operations in general.

In another manner the doctors are anything but monopolistic. Practically every doctor gives away hundreds of dollars worth of services free every year; but certainly they are entitled to retain the right to determine to whom they will give free service.

One reason why free medical services would not be practical is that there is a vast difference in doctors, and different people want a choice of doctors to serve them. If everyone should receive all the medical service he really could use, it would be an extremely expensive undertaking. And where would this money come from to make medicine free? If attempted to be made free, it could only be made free in a very meager and unsatisfactory manner, because there are not enough doctors of the greatest skill to give complete medical and dental service to all.

And the pay for this would not come from the rich, as the taxes are not now coming from the rich, but it would come from the great middle class of honest workers. The wealth that would be paid the doctors would have to come from this class and they now are not able to pay the running expenses of the Federal Government at the rate of $100 per year for every worker; with our present government socialism we are eating up savings of the workers of the past. Why should we take more from the worker, who produces his right to have good, efficient medical service and more of the comforts of life and give it to those who do not produce? One of the greatest incentives for saving and sacrificing and doing without semi-luxuries is the ability to get the best medical care in case of sickness.

Political Football

And if medical services were free, each patient would be obliged to take whatever doctor the governmental bureau decided to send him. And the bureau would send, undoubtedly, the best doctor to those who helped keep them in jobs. And individuals who did not agree with those in power would get the poorest. Who would like to have a man like Franklin Roosevelt or William Gibbs McAdoo, or their agents, selecting a doctor for them? And these men who control the doctors also would control their treatment. The doctors would not be able to use their own initiative and their own judgment. There would be no competition. The medical profession would sink to bureaucratic stagnation.

If there is anything that is impractical, because of the vast difference between doctors and the need of ever and ever better medical service, it is free medicine. It would be the death knell to progress in medical advancement.—Santa Ana *Register*, August 19.

* By R. C. Holles.

Subject: Costs of public institutions in San Francisco.

San Francisco, July 13, 1938.

Editor, California and Western Medicine,
450 Sutter Building,
San Francisco, California.

I am enclosing sheet setting forth expenditures of the Department of Public Health for 1936-1937, which I know will be of interest.

With kind regards, I am
Sincerely,
J. C. Geiger, M. D.,
Director of Public Health.

* * *

Total Expenditures, San Francisco Department of Public Health
1936–1937

Population estimate, San Francisco, 1936–1937 693,000

		* Cost Per Patient Day
San Francisco Hospital	$1,541,396.33	$4.02†
Laguna Honda Home	589,810.03	0.858
Hassler Health Home	91,390.79	2.829
Emergency Hospitals	229,177.50	3.207
Outpatient Maternity	10,440.56	25.65
City Physicians	31,924.62	1.34
General Conservation of Public Health	656,959.54	
	$3,151,099.37	

Average daily census of San Francisco Hospital	1,051
Average daily census of Laguna Honda Home	1,908
Average daily census of Hassler Health Home	88
Total number of patients served by Emergency Hospitals	71,446
Total number of patients visiting Outpatient Maternity Clinic for examination	859
Total number of births at home, Outpatient Obstetrical	242
Total City Physicians' calls	16,259
Average monthly total of patients on Outpatient follow-up service—San Francisco Hospital	580

* The above figures do not include cost of employees' retirement system; nor depreciation on buildings and equipment, which amounts are not included in Health Department budgetary accounts, but which do add to the cost to the City and County of San Francisco.

† Editor's Note.—These San Francisco costs may be compared with higher Los Angeles rates as given in California and Western Medicine, February, 1938, page 100.

Subject: Medico-Military Inactive Status Training, Mayo Foundation.

HEADQUARTERS SEVENTH CORPS AREA
Office of the Surgeon

Omaha, Nebraska,
August 15, 1938.

To Medical Department Reservists.

1. The tenth annual Inactive Status Training Course for Medical Department Reservists of the Army and Navy will be held at the Mayo Foundation, Rochester, Minnesota, October 3 to 15.

2. During the past nine years this school, the first of its kind, has been remarkably successful. Officers attending have been most enthusiastic. The general plan of former years will be followed. Special work in clinics and hospitals will be offered during the morning hours for those asking special assignments. Presentations of carefully selected subjects in military medicine are scheduled for the morning, afternoon, and evening hours. There will be appropriate sections or special courses for officers of the Dental and Veterinary Corps.

3. The school program for the last three days of the meeting, *i. e.*, October 13, 14, and 15, is merged with that of the Association of Military Surgeons of the United States. The Surgeons-General of the Army, the Navy, and the Public Health Service will attend and participate. Outstanding medical officers from other nations will attend. The Commanding Generals of both the Sixth and Seventh Corps Areas have signified their intention of being present.

4. All Medical Department Reservists are eligible for enrollment. Approved applicants will be enrolled upon the recommendation of the Surgeon of the Seventh Corps Area or the Surgeon of the Ninth Naval District. Applications should be made at an early date and should be forwarded through the respective Reserve headquarters of the officer concerned.

KENT NELSON,
Colonel, Medical Corps,
Surgeon.

Subject: Proposed amendments to the California Medical Practice Act.

(COPY)

420 State Office Building,
Sacramento, California,
August 5, 1938.
Re: Suggested amendment.

Charles E. Schoff, M. D., Chairman,
Law and Education Committee,
Board of Medical Examiners,
Medico-Dental Building,
Sacramento, California.

Dear Doctor Schoff:

The Bulletin of the Los Angeles County Medical Association, July 7, 1938, page 499, printed an article headed "Quack's Death Seen in Law," wherein attention was drawn to "the so-called Steingut Advertising Bill," which recently became a law in the State of New York. Said bill is now shown as Chapter 669, Laws of 1938, State of New York, copy of which please find enclosed.

We would greatly appreciate your giving earnest consideration to the advisability of amending the California Business and Professions Code by adding to the causes for the issuance of a citation the following:

(*a*) Fraud or deceit in the practice of medicine.

(*b*) The offering, undertaking or agreeing to cure or treat disease by a secret method, procedure, treatment or medicine; or a claim that a licentiate can treat, operate and prescribe for any human condition by a method, means or procedure which he refuses to divulge; or the advertising for patronage by means of handbills, posters, circulars, letters, stereopticon slides, motion pictures, radio, or magazine.

At your convenience, any time prior to the coming October meeting, we will be pleased to discuss prospective legislation with the possibility of reintroducing amendments to the Business and Professions Code which heretofore have failed to become the law.

Very truly yours,
C. B. PINKHAM, M.D.,
Secretary-Treasurer.

(COPY)

An act to amend the education law, in relation to annulment of registration of physicians.

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Subdivision 2 of Section 1264 of Chapter 21 of the laws of 1909, entitled "An act relating to education, constituting Chapter 16 of the Consolidated Laws," as amended by Chapter 140 of the laws of 1910, such section having been added by Chapter 85 of the laws of 1927, is hereby amended to read as follows:

2. The license or registration of a practitioner of medicine may be revoked, suspended or annulled or such practitioner reprimanded or disciplined in accordance with the provisions and procedure of this article upon decision after due hearing in any of the following cases:

(*a*) That a physician is guilty of fraud or deceit in the practice of medicine or in his admission to the practice of medicine; or

(*b*) That a physician has been convicted in a court of competent jurisdiction, either within or without this state, of a crime; or

(*c*) That a physician is an habitual drunkard, or addicted to the use of morphin, cocain, or other drugs having similar effect, or has become insane; or

(*d*) That a physician *offered, undertook or agreed* to cure or treat disease by a secret method, procedure, treatment or medicine or that he can treat, operate and prescribe for any human condition by a method, means or procedure which he refuses to divulge upon demand to the committee on grievances; or *that he has advertised for patronage by means of handbills, posters, circulars, letters, stereopticon slides, motion pictures, radio or magazines; or*

(*d*) That a physician did undertake or engage in any manner or by any ways or means whatsoever to procure or to perform any criminal abortion or to violate Section 1142 of the penal law.

3. This act shall take effect immediately.

Subject: Coöperation of United States Consuls in securing information concerning graduates of foreign medical schools.

420 State Office Building,
Sacramento, California,
August 8, 1938.
Re: Foreign medical school graduates.

Honorable Cordell Hull,
Secretary of State,
Washington, D. C.

Dear Sir:

For several years past, the foreign medical school graduate influx has been constantly increasing.

The California Board of Medical Examiners, as well as other examining boards in the United States, has found it necessary to call upon the American Consuls for assistance in verification of credentials. Undoubtedly, this has caused a considerable increase in the volume of correspondence handled by the American Consuls in various foreign countries. This is evidenced by the enclosed copy of a letter signed Raymond H. Geist, American Consul, Berlin, Germany.

The undersigned, who has served for some twenty-five years as executive officer of the California Board of Medical Examiners, feels that the American Consul is the individual on whom we must depend for verification of foreign medical school credentials, thus lessening the possibility of acceptance of questionable credentials, which not infrequently come to our attention, bearing the names of foreign medical schools.

The California Business and Professions Code relating to the practice of medicine and surgery has been amended exacting additional requirements of foreign medical school graduates, as you will note by the enclosed printed Form 172–173.

May we hope for the continued coöperation of the respective American Consuls in foreign countries? If we can

not longer avail ourselves of this service, would appreciate your advising us as to what procedure may be followed in the future to guarantee receipt of authentic information relative to foreign medical school credentials.

Respectfully submitted,

BOARD OF MEDICAL EXAMINERS,
State of California.
By C. B. PINKHAM, M. D.,
Secretary-Treasurer.

* * *

(COPY)

THE FOREIGN SERVICE
OF THE
UNITED STATES OF AMERICA

Department of State *American Consulate General*

Berlin, Germany,
July 9, 1938.

Dr. C. B. Pinkham,
Secretary-Treasurer,
Board of Medical Examiners,
State of California,
420 State Office Building,
Sacramento, California.

Sir:—The receipt is acknowledged of your letter dated June 24, 1938, in which you request this office to verify whether one ———, M. D., received a medical diploma from the Friedrich Wilhelm University at Berlin, how long he studied medicine there, and whether he is licensed to practice medicine in Germany. It is noted that this information is desired in connection with Doctor ———'s application to practice as a physician and surgeon in the State of California.

In reply I regret to have to inform you that this Consulate General is not in a position to obtain such information for aliens. It is suggested that the interested person have relatives or an agent here, such as a lawyer, obtain the necessary documents proving his allegations. These documents can be obtained from the pertinent authorities on the payment of the usual fees and in turn can be duly authenticated by this office (on the receipt of the prescribed fees) for use in the United States. As of possible assistance there are enclosed a list of American attorneys in Berlin and a list of German attorneys.

Very truly yours,
(Signed) RAYMOND H. GEIST,
American Consul.

Subject: California Society for the Promotion of Medical Research.*

August 18, 1938.

Editor, CALIFORNIA AND WESTERN MEDICINE.

In the August issue of CALIFORNIA AND WESTERN MEDICINE you printed a list of seventy-nine organizations endorsing the campaign against the proposed State Humane Pound Act.

This number has now increased to one hundred twenty-eight, a list of those not published being attached.

Very sincerely yours,
WILLIAM F. BENEDICT,
State Campaign Director.

* * *

LIST OF ADDITIONAL ORGANIZATIONS ENDORSING WORK OF CALIFORNIA SOCIETY FOR THE PROMOTION OF MEDICAL RESEARCH FOR THE DEFEAT OF PROPOSED "STATE HUMANE POUND ACT"

California Tuberculosis Association
American Society for Pharmacology and Experimental Therapeutics
Certified Milk Producers' Association of America
American Genetic Association
American Psychiatric Association
National Tuberculosis Association
American Society for Experimental Pathology
American Society of Medical Technologists
American Society for the Control of Cancer
National Gastroenterological Association
American Board of Pathology
American Association of Railway Surgeons
Eastern Surgical Society
American Association of the History of Medicine
American Society of Naturalists
Agricultural Council of California
Oklahoma Academy of Science
Pacific Physical Therapy Association
California Cattlemen's Association
Association for the Advancement of Industrial Medicine and Surgery
North Dakota Academy of Science
American Academy of Ophthalmology and Otolaryngology
Federation of State Medical Boards of the United States
Association for the Study of Allergy
American Association of Orthodontists
California Association of Health, Physical Education and Recreation
Illinois State Academy of Science
Indiana Academy of Science
American Association of Neuropathologists
American Medical Association, Woman's Auxiliary
American Veterinary Medical Association
American Orthopædic Association
American Association of Immunologists
Bureau of Hotels, Restaurants and Purveyors
San Francisco Restaurant Association
Southern California Retail Druggists' Association
Jewish Consumptive and Expatients' Relief Association
Los Angeles Chamber of Commerce
Dried Fruit Association of California
Italian Legion
American Chemical Society, Pacific Intersectional Division
American Meteorological Society
American Physical Society
American Society of Plant Physiologists, Western Division
Astronomical Society of the Pacific
Northwest Scientific Association
Oceanographic Society of the Pacific
San Diego Society of Natural History
Seismological Society of America
Western Society of Soil Science
Academy of Physical Medicine
French Mutual Benevolent Society
California Fruit Growers Exchange

* Office at 369 Pine Street, San Francisco. Telephone Sutter 8118.

MEDICAL JURISPRUDENCE †

By HARTLEY F. PEART, ESQ.
San Francisco

Reports and Certificates Required of Physicians and Surgeons by Various Statutes

During the normal course of a physician's practice, it often becomes necessary to fill out and file reports and certificates of one kind or another.

It is believed that a review of the essential requirements relating to some of the more common reports and certificates may be helpful to practicing physicians and surgeons.

Usually a report or certificate is required because of the provisions of a statute. Sometimes, as in the case of insurance applications or reports, it is a purely voluntary act to aid a patient. In the following discussion only reports and certificates *required by a law or statute* will be considered.

Reporting of Injuries Inflicted by Violence

Under the terms of a statute enacted in 1929 (Deering's General Laws, Act 3431) it is the duty of every physician or surgeon who has under his charge or care a person suffering from a wound or injury inflicted by means of a knife, gun, pistol or other deadly weapon to submit a report both by telephone and in writing to the chief of police, city marshal, town marshal or other head of the police department of the city or town within which the injured person is found. If the patient resides in a rural area, the report must be made to the sheriff of the county. This statute must be complied with if the injury is self-inflicted or

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

occasioned by the act of another or inflicted "in violation of any penal law of this state." The statute does not enlighten one with respect to how a physician or surgeon is to determine whether or not a violent injury was inflicted in violation of a penal law. The burden, however, is on the physician or surgeon to decide at his peril. Therefore, it is essential that every violent injury, whether it is caused by means of knife, gun, pistol or other deadly weapon, be immediately reported even though the attending physician or surgeon may have reason to believe that the injury occurred innocently or accidentally.

Reporting of Contagious Diseases

A 1907 statute (Deering's General Laws, Act 6238, Section 16) provides that:

> All physicians, nurses, clergymen, attendants, owners, proprietors, managers, employees and persons living in or visiting any sick person at any hotel, lodging house, house, building, office, structure, or other place where any person takes ill of any infectious, contagious or communicable disease shall promptly report such fact to the county, city and county, city or other local health board or health office. . . .

The penalty for violation of this statute is a fine of not less than $25 nor more than $500 or imprisonment for not more than ninety days or both such fine and imprisonment.

Reporting Industrial Accidents

Under Section 6407 of the California Labor Code, every physician or surgeon who attends an injured employee, that is to say, an employee injured in the course of employment, must file with the Industrial Accident Commission a complete report of the injury sustained. The section also provides that the report is not necessary if the injury does not last "through the day or does not require medical service other than ordinary first-aid treatment." A report is required by Section 6407 only if an injury is received by an employee during the course of his employment. No report is necessary if an employee is injured outside of working hours.

Reporting of Ophthalmia Neonatorum

Section 551 of the Business and Professions Code provides that:

> It is the duty of any physician, surgeon, obstetrician, midwife, nurse, maternity home or hospital, parent, relative, and any persons or person attendant upon or assisting in any way whatsoever either the mother or child, or both, at childbirth in all cases where the child develops, within two weeks after its birth, ophthalmia neonatorum and such person knows it to exist, to report the case within twenty-four hours after knowledge . . . to the local health officer of the county or city within which the mother of any such infant resides.

Failure to report to the local health officer as required by the foregoing section constitutes a misdemeanor.

Death Certificates

Death certificates are required in all cases, and the portion thereof known as the "Medical Certificate" must be made and signed by the physician, if any, last in attendance on the decedent. The attending physician is required to specify the time in attendance, the time he last saw decedent alive and the hour of the day on which death occurred. (Deering's General Laws, Act 1998, Sec. 6). In addition, the attending physician is required to state the cause of death, giving the primary and immediate causes and contributing causes, if any, and the duration of each. The statute also provides:

> For cause of death in hospitals, institutions, or away from home, the physician shall furnish the information required under this head and shall state where, in his opinion, the disease was contracted.

Death certificates are required for stillborn children or those dead at birth. In cases of stillbirths the medical certificate of cause of death must be signed by the attending physician or midwife and must state the cause of death as "stillborn" with the cause of stillbirth, whether a premature birth, and if born prematurely the period of uterogestation in months, if known.

With respect to all vital statistics, there is a State Bureau of Vital Statistics within the State Department of Public Health. The Bureau of Vital Statistics is required to superintend the complete and proper registration of deaths and for this purpose the state is divided into registry districts. The recorder of each county or city and county, and the clerk of each city or incorporated town is the local registrar for the Bureau of Vital Statistics. Certificates of death are required to be filed with local registrars.

In cities having a charter, the health officer is required to act as local registrar in lieu of the recorder.

The Vital Statistics Act requires that every physician *must* register with the local registrar in the district in which he resides. It is a misdemeanor to violate any of the terms of the Act.

Birth Certificates

It is the duty of physicians and midwives to make a return to the local health officer of all births occurring in their practice during each preceding month (Deering's General Laws, Act 5233, Sec. 184). Such returns must be made upon blanks furnished by the State Board of Public Health.

In connection with birth certificates, it was held in *People* vs. *Frazer*, 23 Cal. App. 82, that a birth certificate is not an "instrument" within the meaning of that term as used in Section 115 of the Penal Code. Section 115 provides that it is a felony to procure the filing or recording of a false or forged instrument in any public office of this state. Hence, a birth certificate is not granted the dignity of a conveyance or mortgage.

SPECIAL ARTICLES

VIOLATION OF ANTI-TRUST LAWS IN ALLEGED EFFORTS TO PREVENT OPERATION OF GROUP MEDICAL ORGANIZATION TO BE PROBED

The Department of Justice, according to a United Press dispatch dated Washington, July 31, announced that it will file criminal proceedings against the American Medical Association and the District of Columbia Medical Society to determine whether any of their members violated anti-trust laws in opposing group health associations.

Citing specifically organized opposition to Group Health Association, Inc., here, formed by 2,500 government employees to provide prepaid medical care at a nominal sum, the Department charged that the American Medical Association and district society "and some of the officials of both these organizations are attempting to prevent this association from functioning."

METHODS DETAILED

A department statement, issued by Thurman Arnold, Assistant Attorney-General in charge of "trust-busting," charged that the two organizations allegedly employed the following methods to prevent operation of the Association:

1. Threatened expulsion from the District Medical Society of doctors who accept employment with Group Health Association.

2. Threatened expulsion from the District Medical Society of doctors who take part in medical consultation with Group Health Association staff doctors.

3. Exclusion from Washington hospitals of Group Health Association staff doctors, making it impossible for them to practice their profession in the hospitals.

The Department said that, in its opinion, "this is a violation of the anti-trust laws because it is an attempt on the part of one group of physicians to prevent qualified doctors from carrying on their calling and to prevent members of Group Health Association from selecting physicians of their own choice."

LAW INTERPRETED

"The Department interprets the law as prohibiting combinations which prevent others from competing for services as well as goods," the statement said. "The particular persons responsible for this violation can only be ascertained by a grand jury investigation. Such an investigation will be undertaken by the Department in the near future."

The Department's action came four days after Federal District Judge Jennings Bailey ruled that the Group Health Association is a legitimate arrangement between a group of government employees and a group of physicians and does not constitute violations of medical or insurance statutes.

"The analogy to which this proceeding should be compared is that of a prosecution for reckless driving, committed by a person of distinction and good-will who is in a hurry to meet his legitimate engagements," the Department said.

"The absence of moral turpitude, however, does not lessen the duty of the Department to prosecute where it believes violations of the anti-trust laws have occurred.

"As already announced, therefore, where evidence of violations of the anti-trust laws exists, it (the Department) has no alternative except to proceed before a grand jury, except in those cases where past acquiescence or other special considerations have made a criminal proceeding inequitable."

The statement emphasized that an indictment for violation of the anti-trust laws necessarily does not imply moral turpitude. It added that "thus in the present case the Department does not take the view that the offenses committed are crimes which reflect upon the character or high standing of the persons who may be involved."

EFFECT NATION-WIDE

It said that while the suit primarily involved Washington, it was selected because its "importance is nation-wide and its value as a precedent is of far-reaching consequence on one of our most pressing problems."

"The illegal activities of organized medicine in this instance are typical of what have occurred in other cities throughout the country whenever coöperative health groups have been formed," the Department said.

It held that coöperative health associations are designed primarily to help families not on relief and added that Group Health Association is a consumers' coöperative organization whose members pay monthly dues to maintain a staff of physicians and operate a clinic.—Pasadena *Post*, August 1.

DOCTORS HAVE THE REMEDY*

One does not like to accuse the trust-busting branch of the Department of Justice of not knowing the anti-trust law. And yet there seems to be a curious misfit in resorting to the anti-monopoly provisions of that law to restrain the confessedly monopolistic tactics of the American Medical Association. For what that law forbids is not monopoly generally, but monopolistic measures "in restraint of trade." And, while the recent boycotts and other tactics of the Fishbein group of the Medical Association are undoubtedly "in restraint," what they "restrain" is not "trade"—unless the practice of medicine is "trade."

* * *

If the Medical Association comes under any law at all, it is certainly not under the law regulating commerce. Medicine is not commerce. It does not manufacture, transport or sell goods. It renders personal services for pay. That makes it, if anything, industrial, a labor union. Its members work for fees, or for wages, and these "restraints," now complained of, are boycotts of "scabs" who cut wages, or are refusals to work with those who do not comply with the union rules. These things are all against the law, if done by manufacturers or merchants of goods. They are all expressly protected by the law, if done by workers for pay. If working at medical practice, for pay, brings the American Medical Association and the District of Columbia Medical Society under the anti-trust laws, what about the A. F. L. and C. I. O. unions, which have been doing all these things for years, with the full sanction of the labor laws?

As a matter of fact, the practice of medicine has long been a monopoly, made so by law. No one is permitted to practice medicine and surgery except a licensed member of the profession, and these licenses are exceedingly hard to get. They require a training which very few people have or would be capable of mastering, plus the passing of an examination which very few people can pass. These licenses used to be issued by the Medical Association itself. Now they are issued by the state. Either way, they confer a monopoly, and make it a criminal offense for any unlicensed person to engage in a practice reserved to these privileged licensees. All of which is, of course, as it should be and is for the protection of the public. But it would be decidedly against the interest of the public if the principle were applied to the sellers of groceries or the manufacturers of nails.

* * *

So, if the doctors come under any laws, it must be under the labor laws, and whatever they do will be legally permissible if it is likewise permissible to the Typographical Union or the Brotherhood of Locomotive Engineers. The Medical Association either is a labor union, amenable to the labor laws, or else it is something else, which comes under the laws neither of labor nor of commerce. Of course, whatever it is in law, it is in fact something entirely distinct, since a profession is neither commerce nor labor.

* * *

The real offense of the Fishbein-dominated group, now precariously in possession of the official organization of the profession, is in fact that it does treat the profession too much as a labor union, and insists on the rights and resorts to the tactics of a labor union. This may very well be a legal defense against the threatened prosecution of the Medical Association. If it insists on being a labor union it is entitled to the protection of the labor laws and to the exemption from the commerce laws which are granted to other labor organizations. But, if so, it is an escape from fact into a legal fiction. A scientific profession should cling to fact, in the political and sociological parts of its activities, as it does in the pathological and therapeutic ones.

* * *

The immediate offense charged in Washington is the boycott by the Association of doctors who accept employment by the "Group Health Association," organized by Government employees; refusal to consult with them or with any who do so, and the exclusion from hospitals of Group Association doctors. These are the exact things which the rival maritime and longshoremen's unions are now doing to each other. It is straight labor-unionism, quite in accordance with the labor laws—and grossly inconsistent with the responsibilities of a scientific profession, charged with the protection of the health of the public and of individuals.

* * *

The proposed prosecution is, of course, an absurdity and will be a farce. The remedy is in the doctors themselves or, failing that, in new laws, which are neither commercial nor labor laws, but medical laws. The doctors have insisted that if there is to be any group organization of the business (not the practice) of medicine, it shall be voluntary. Here is a voluntary organization and they are boycotting it. Quite possibly they are right. For any purely voluntary association is almost certain to succumb to the temptation of "contract" medicine—of hiring particular doctors, for wages, to serve its members. This is the cheapest way.

* * *

But it is not the best way. The best way is an insurance system in which the patient chooses his own physician, just as he does now, and the two deal with each other in all respects but one just as they do now. The one exception is that the doctor is paid by the insurance fund, to which the patient has contributed, instead of by the patient individually. So long as the present leaders of the organized profession set themselves rigidly against this obvious remedy, they are sure to be confronted by other and undesirable ones. The Association leaders have now recognized that the social (not the medical) problem exists. Unless they will coöperate in a positive social (not merely medical) solution of it, the law will do it for them. And, without their coöperation, it probably will do it badly. That will not be good for either the science, the practice or the business of medicine.—San Francisco *Chronicle*, August 4.

* By Chester H. Rowell.

DOCTORS GIVEN RAW DEAL BY ONES THEIR SKILL SAVES*

The problem of medical and surgical treatment for the masses is cluttered with undeserved pity for people who have convinced themselves that they can't pay the doctor for easing their pains or saving their lives, but could do so if they tried. The doctors of this country give away more free goods off their shelves than the members of any other profession, including the actors and musicians, who come next. They have their gyps and rotters, their publicity-crazy hams and ignoramuses, but they do more good for suffering humanity and in critical moments than the members of any other calling.

Of course, it will be argued that they should do this because they are in a position to. That is their job. But the fact is, nevertheless, that they do give this service, and it is a further fact that society doesn't appreciate the good they do. People overemphasize their mistakes of judgment or negligence, forgetting that a doctor's mistake is more likely to have fatal or, anyway, dreadful consequences than a mistake by a plumber, a grocer, or a journalist.

If the work of the plumber springs a leak, if the grocer sends snookies instead of snackies, or if the reporter names W. C. Smith as corespondent in the divorce story when it should have been W. G. Smith, that means very little paint off anyone's fenders. But let a doctor make a comparable mistake and there is all hell to pay, on top of the fact that maybe he stood to be swindled out of his pay—or most of it, anyway—even if he had done a bang-up job.

* * *

MANY PHASES OF QUESTION

There are many phases of the question, but I mean to stick to this one for today's lesson. I am thinking of those who think that $200 is an outrageous price to pay for the removal of an appendix which has developed the menacing nature of a bomb in the patient's inwards. The surgeon gets the victim into a hospital as quickly as possible, gives him a jab of something to relax him and in a very short time is delving around in his giblets without fifty cents on the line to pay for laundering his smock.

So the patient gets well, and when the bad news comes he forgets that feeling as of a litter of porcupines frisking about in his abdomen, forgets how scared he was and his alarm for the security of his dependent family, and calls the doctor a burglar. Why, he makes only $25 a week, and so, instead of paying the doctor a dollar a week, as he would pay the installment man for the radio or sewing machine, his policy is to skip it entirely. He forgets, also, that if the surgeon hadn't done his stuff promptly and well, specialized stuff that nobody but a surgeon could have done, his family would be on the town right now.

If a patient can pay small amounts to a coöperative over a spell of years for treatment which he may need in the future, he can just as well pay a doctor a stated amount each week over a long term for treatment which he has already received. But in too many cases he just won't, and the doctor is accused of bearing down on a man who can't afford to pay for the saving of his life but can manage somehow to come up with the price of many nonessentials.

* * *

PATIENTS LIE ABOUT INCOMES

Many doctors nowadays serve patients in the public clinics who are able to pay reasonable professional rates for their treatment. In this way the doctor is compelled to rob his own family of the just rewards of his work so that other men's families may deadhead it. Patients lie about their income and pretend to be in tatters who ought to be told to decide which they value more, their money or their lives. And the ethics of the profession and sentimental sympathy for the invalid are such that if the patient were asked to stand for a frisk to prove his inability to pay, that would be a callous outrage and the doctor would be an extortioner.

But there is no great wrong in that, considering how minutely the people's affairs are searched by the income tax men. We hear that it is degrading to the applicant to send investigators nosing into their family earnings, if any, when the problem is one of relief or medical treatment, but that is something that all those who have taxable incomes must submit to at any time the Government feels inquisitive.

There is more or less larceny in all the human race, and this problem of medicine for the masses would be less difficult if those who can pay were prevented from appealing to public sympathy at the doctor's expense by mingling with the truly destitute.—San Francisco *News*, August 10.

* From the "Fair Enough" column by Westbrook Pegler.

THE COLUMNISTS' COMMENT ON THE ARNOLD PRONUNCIAMENTO*

Elsewhere in this issue appear editorials published in various newspapers relative to the pronunciamento of Thurman Arnold, who proposes to determine whether or not the American Medical Association is a monopoly. Seldom has an action taken by the Department of Justice aroused the public interest and attention developed by this action. In addition to the editorials which have appeared in the newspapers, practically every one of the columnists syndicated in newspapers throughout the country has had something to say on the subject.

Paul Mallon, widely circulated by King Features Syndicate, in his column "News Behind the News," after describing the case and stating that if the American Medical Association is a monopoly so is the American Bar Association, says that this suit—

> would simply mean the Justice Department is misnamed and has become instead a prosecution department to enforce, not alone the law, but social and economic theories.

Mr. Mallon also indicated that application of this principle would mean that newspaper correspondents might object because some of them cannot get into the press galleries of Congress, and the attendance on the President's press conferences is also strictly limited. Those who can get in have a great commercial advantage over those who cannot.

Mr. Hugh Johnson feels that the attitude of the American Medical Association in resisting coöperatives is "heading straight for the dog house of public disfavor," but he is inclined to think that the Department of Justice has not picked out the way—

> to bring about the desired end. . . . It is a slick, novel and sort of smart-aleck use of a 40-year-old law for a purpose which nobody ever before believed that it was intended.

David Lawrence, widely syndicated, feels that—

> the doctors have a society which is as much entitled to protection under the Wagner Relations Act as any other association of service workers.

After explaining his view that the Department of Justice has intervened principally to help the Group Health Association, Inc., Mr. Lawrence says:

> The attempt to drag the antitrust laws into a controversy over what is or is not proper medical care is a piece of amazing political stupidity, but it is another example of how the zealots in the administration, with the full approval of President Roosevelt, are manipulating the laws of the United States to gain the goals of their so-called social experiments.

Mrs. Walter Ferguson, after explaining the nature of the controversy in Washington, says:

> The average layman holds himself aloof from the controversy about his welfare now raging between the Federal Government and the American Medical Association.
>
> If he is a middle-class citizen, he considers himself a martyr and is fond of saying that only the very rich and the very poor receive any consideration from doctors—although I doubt whether he would be willing to exchange places with the poor.
>
> If we are honest, we must admit that our attitude toward the doctor has always been irritable and without consistency. We're ready to spend money on everything except our health. Most families will make any sacrifice to buy an automobile on the instalment plan, while they feel much aggrieved if they have to invest monthly sums to pay for medical attention which may have kept one of them out of the grave.

* From *The Journal of the American Medical Association* for August 13, 1938.

In the Baltimore *Sun* Mr. Henry L. Mencken says:

A defect common to all the plans so far proposed is that they are confined to employed persons and offer no aid to the unemployed. The latter are thus thrown on the free clinics, which are mainly manned by doctors who get nothing for their work.

This puts a very heavy burden on the medical profession, and there are doctors who begin to find it almost intolerable. Proposals have been made that the Federal Government offer them some remuneration, and no doubt this will be done as soon as the New Deal wizards can get around to it.

But whether the doctors will accept remains to be seen. Most of them are unalterably opposed to going on the public pay roll and so submitting their work and their fortunes to the will and whim of politicians.

Their opposition is hardly likely to be lessened by the fact that all the Communist organs have begun a violent campaign against them, denouncing them as sharks and scoundrels. Or by the fact that the New Deal has now joined in.

A newspaper columnist, named Jay Franklin, who has repeatedly attacked the American Medical Association since he first appeared on the newspaper horizon and who endeavors to identify the editor of THE JOURNAL as personally responsible for every policy of the American Medical Association, devotes most of his discussion to a further attack. It is impossible to find anything in his column sufficiently sensible to merit quotation. He writes as though authoritatively without having made the slightest apparent effort to find out the facts. In contrast, Bugs Baer, in a few succinct sentences, puts his finger squarely on the political motives involved in the attempt to make medical care the issue in future political campaigns:

The doctors don't approve of the federal health plan subject to a prescription by thirty-six states. A Democratic pharmacist deciphering a Republican doctor's diagnosis might mix in too much filibuster and not enough relief.

Health shouldn't be subject to politics. And when we're sick we don't want the opposition voting on it.

The insurance companies are nonpartisan. They pay off like a slot machine either way.

WESTERN INSTITUTE FOR HOSPITAL ADMINISTRATORS

The Western Institute for Hospital Administrators closed a two weeks' conference on August 19 at Lagunita Court, Stanford University, California. The Institute was sponsored by the American College of Hospital Administrators, in coöperation with the Association of Western Hospitals, the Association of California Hospitals, and the Western Conference of the Catholic Hospital Association. B. W. Black, M. D., Second Vice-President of the American College of Hospital Administrators, assisted by Thomas F. Clark, Executive Secretary of the Association of Western Hospitals, and by Gerhard Hartman, Acting Executive Secretary of the American College of Hospital Administrators, was the director.

Administrators and executives from hospitals located in California, Washington, Oregon, Utah, Arizona, Idaho, Montana, British Columbia, Manitoba, and Alberta, as well as in Hawaii and China, registered for the conference. A total of sixty-seven hospitals and sanitaria were represented, some hospitals sending more than one representative.

Nationally recognized leaders participating in the Institute included Malcolm T. MacEachern, M. D., Associate Director of the American College of Surgeons; Robin C. Buerki, M. D., President-elect of the American College of Hospital Administrators, Mr. James A. Hamilton, First Vice-President of the American College of Hospital Administrators, and Benjamin W. Black, M. D., Director of Institutions, Alameda County, California.

"The conference seminars," said Doctor Black, Director, "discussed aspects of the problems facing the hospital administrator, such as nursing, food service, new building innovations, better care for babies, medical records, and use of special services such as the x-ray."

Nurses' preparation is fast becoming more thorough in order to give the scientific care which the patient needs. She helps the doctor give the patient professional service. Always noted for her thoughtful manner and charming personality, she is now striving to better her services professionally. The use of nurse stewardesses on trains is opening an entirely new field for young women trained for the work.

In the discussions of food service, special diets and food preparations were considered. Quality, not bulk, is the need of the patient, the Institute members were told. The individual attention necessary makes food service one of the most costly items in a hospital, but it is, nevertheless, one of the most important.

If hospital buildings are to serve the patient efficiently and well, they must adopt the new innovations in building. Refrigeration, air-conditioning, lighting, and various features of architecture can do much to make the patient comfortable while he is confined to the hospital.

Medical Records.—In his address to the administrators, Doctor MacEachern pointed out that a great deal of effort has been expended in securing the medical records of patients. Many divisions of the hospital and extensive effort on the part of professional personnel have contributed to its compilation. All of this effort is wasted, unless the record is preserved in such a way that it will be not only available, but attractive for the purposes for which it was intended. When a patient is in the hospital, the record served as a guide to give treatment, and certainly contributed to his good health. After the patient is discharged the record is left in the hospital, where it is indexed and filed in order to be readily available should the patient again become ill and require hospital care. In the hands of the hospital the record remains an impersonal document, and the private aspects of its contents should never be divulged. As a document for research, the medical record fills an essential need. Its use should be restricted to physicians and other persons competent to use the facts and findings intelligently. A final use is the opportunity which it affords the governing board of the hospital to appraise the work of the medical staff.

Education.—Doctor Buerki stressed the need for additional educational preparation on the part of hospital administrators. If they are to control and supervise the personnel and facilities directed toward the education of the professions, they themselves must be prepared to meet some of the educational requirements of their own. In this connection, he stressed the work of the American College of Hospital Administrators in setting up educational standards for the preparation of persons entering the field as well as for those actively engaged in the administration. Professional and business elements must be an integral part of this training. In order to operate hospitals economically, administrators must know something about the essential elements of accounting and financial control, as well as something of the management of the physical aspects of the plant.

"Hospitals in the future," Doctor Buerki said, "will be increasingly significant as educational institutions, and their skilful management is dependent upon a sound economic basis. They will be used for the training of medical specialists and for continuing the education of physicians made necessary by the rapid strides of medical progress."

Organization and Personnel.—Another aspect of hospital management was discussed by Mr. James A. Hamilton—hospital organization and personnel. Scientific hospital organization is necessary for offering the patient the maximum of care at a minimum of cost. This organization, however, should never lose sight of the needs of individual patients. Overcomplicated procedures may cause the staff to forget that the patient is a human being with definite psychological as well as physical needs. The discipline, so necessary for efficient organization, must be carefully exercised in hospitals, because the lives of patients are involved. Authority to exercise discipline must be in competent hands.

In discussing the relations of labor to hospital organization, Mr. Hamilton urged hospital administrators to make more intelligent and personal contacts with their employees. Labor troubles are still caused by an accumulation of minor grievances rather than by major issues. Administrators must establish channels for adjustment of employee grievances that afford opportunity for expression and discussion. An enlightened approach to hospital personnel problems is needed both on the part of hospital adminis-

trators and employees if labor disturbances are to be prevented from impairing the quality of care rendered to patients. The care of the patient must always remain the paramount purpose of the hospitals.

Medical Staff.—Medical staff organization is one of the most difficult aspects of hospital management, according to Dr. B. W. Black. In order to integrate the many specialized professional services necessary for rendering adequate care to the patient, the medical staff must be so organized that sight is not lost of the objectives of the institution. It is evident that the medical organization of a small rural hospital will tend to be loose, as compared with that of a metropolitan teaching hospital. The principles or organization, however, are the same in either case. These principles concern themselves with the selection of physicians to serve on the staff, their tenure, and their rights and obligations as staff men.

"The principal objective of the endeavor," said Doctor Black, "was to formulate an educational program designed to furnish authoritative information to those actively engaged in hospital administration or to those who expect to be so engaged."

STATE COSTS ON RELIEF SET AT SEVENTEEN MILLION*

Seven state and federal relief agencies and their twenty principal subdivisions are spending $17,500,000 monthly to care for 900,000 Californians, a survey showed today.

The relief rolls figure represents 14 per cent of the state's population, and is exclusive of such permanent public relief activities as insane asylums, orphanages, homes of correction, and prisons.

Basic of these relief agencies are the counties, which once bore the responsibility for all relief. Their obligation today is the care of unemployables—a phase of relief that existed before the depression and will continue when it is forgotten.

DAILY SUBSISTENCE

They provide daily subsistence for those who are incapacitated by reason of physical disability and mental incompetence, and hospitalization for those who are ill.

Next above them is the State Relief Administration, charged generally with the care of all needy unemployed.

In addition to direct aid to indigent families for whom there is no work relief, its principal subdivisions are relief camps to which are sent indigent single men, the self-help coöperative assistance division which aids borderline cases, and the surplus commodity distribution division.

The latter distributes food received from the Federal Surplus Commodity Corporation, and clothing made in Works Progress Administration sewing rooms.

WPA FIELDS

Next is the Federal Works Progress Administration and its eight principal subdivisions, paying a security wage to men and women certified to it by the State Relief Administration as needy employables.

Largest of its subdivisions are the construction projects for unskilled labor. Next are the women's projects.

Five of its subdivisions are described as cultural—the Federal Art Project, Federal Music Project, Federal Theater Project, American Guide and Historical Records Project—because they employ men and women trained as artists, actors, writers, and research workers.

Its principal remaining subdivision is the National Youth Administration, providing aid to college and high school students, and part-time employment for boys and girls classified as underprivileged.

A separate administration is the Civilian Conservation Corps, drawing boys from the same family classification as the NYA.

THREE CLASSES

State and Federal Governments unite in the Social Security Administration, providing three classes of relief.

Administered by the state through the counties, this agency provides old-age assistance (pensions) to aged needy, aid to dependent children, and grants to dependent blind.

The Federal Government reimburses the state for one-half of the pensions, one-third of the aid to dependent children, and one-third of the grants to blind.

Joining with the WPA and SRA in meeting the rural unemployment problem is the Farm Security Administration, engaged in three principal subdivisions of activity. Entirely federal, it attempts to settle farm families by loans and grants, it maintains camps for migratory workers, and in emergencies it provides direct relief.

PWA IS AID

Though not engaged in direct relief, the Public Works Administration, nevertheless, has a direct connection with relief agencies and is designed to reduce the unemployment problem.

It pays the prevailing wage and requires contractors building PWA projects to go first to the State Employment Service for labor, turning to the open labor market only when the Service is unable to furnish men.

The estimate of $17,500,000 monthly relief costs, made by the SRA for August, does not include that spent by Community Chests and other relief agencies without a governmental connection.

* From the San Francisco *News*, August 4.

SOCIAL SECURITY ACT COST PASSES BILLION MARK*

The first three years of the Social Security Act cost the federal treasury $1,232,558,598 and brought in $887,946,271 of revenue.

Roswell Magill, acting secretary of the treasury, made public today the statistics involved in operation of the law, the third anniversary of which will be Sunday, August 14.

Federal expenditures for the gigantic pension system have included $504,204,188 for grants to the states, $690,000,000 for investments in the old-age reserve fund, and about $38,000,000 for administration of the law.

STATES CAUSE DEFICIT

Revenue fell far behind expenditures because amounts nearly equal to the receipts are permanently earmarked for the old-age reserve fund, leaving the state grants to be financed out of ordinary Treasury funds.

The states received $350,590,000 for old-age assistance, $45,819,189 for aid to dependent children, $11,528,663 for blind pensions, $8,538,383 for maternal and child health services, $5,715,952 for aid to crippled children, $2,735,562 for other child welfare services, $19,275,077 for public health work, including venereal disease control, and $60,001,347 for administering state unemployment compensation laws.

FORTY-SEVEN BILLION FUND

The controversial old-age reserve fund—scheduled to reach $47,000,000,000 in 1980—was valued by the Treasury at $1,136,463,498, but its actual investments, including reinvestment of interest receipts, amount to only $700,300,000. The difference is an appropriation credit for which the actual cash will not be received by the fund until the old-age taxes intended to fill the fund are collected.

So far, 38,265,000 employees and 1,787,000 employers have paid in $737,526,539 of old-age pension taxes.

USED BY TREASURY

Legally, these taxes have no connection with the fund, but actually the Treasury uses 95 per cent of the receipts for the fund and the other 5 per cent for administrative costs of the Social Security Board.

The Treasury turns little cash over to the fund. Instead, it borrows back the money it pays the fund, and puts into the fund special Treasury obligations bearing 5 per cent interest. The Social Security Act requires investment of the fund in 3 per cent government securities, which in turn are added to the federal debt.

* From the San Francisco *Call-Bulletin*, August 12, 1938.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XI, No. 9, September, 1913

From Some Editorial Notes:

Politics.—It has reached the attention of the editor of your JOURNAL that certain members of the State Society, mostly in the southern part of the state, have acquired the curious belief that he is in some way "mixed up in politics" and is trying to use the JOURNAL for political purposes. The correct definition of "politics" is the science of government, and under that definition and to that extent alone is the editor in any way interested in "politics." The good of the medical profession in general and of the State Society in particular, and the improvement of public health conditions as they touch upon the domain of the physician, are now and have always been the sole aim and object of the work of the editor and the secretary of your society for twelve years. Party politics or political parties have no special interest for him. . . .

* * *

Rather Encouraging.—The influence of the JOURNAL outside of our own state is certainly perceptible. Even our advertising pages are read in places remote from our own territory, and not infrequently we receive gratifying evidence of that fact. Some time ago we noted that requests for the collection pasters devised by the secretary of the Los Angeles County Medical Association had come from a number of different states and also from abroad. . . . We certainly can commend the idea to them, for it is invaluable to those who have learned to use it in San Francisco. . . .

* * *

The Writing on the Wall.—A year or more ago an address was delivered before the San Francisco County Medical Society on some of the sociological problems of the medical profession. These were divided into two classes—problems or diseases entirely within the profession, and problems arising in the domain of the laity and affecting the medical profession; it was shown that nearly all the problems of any special import are those entirely within the medical profession. . . .

From an Original Article on "Primary Infections with Tubercle Bacilli, with Special Reference to Thoracic Glands" by Philip King Brown, M. D., San Francisco.—In this study of the probably commonest mode of entrance of tubercle bacilli into the human body, in which I am trying to show that the tracheobronchial glands are in most instances the seat of the initial lesions and the means of dissemination of the tuberculous process to the lungs in most cases, four lines of investigation have been carried on. . . .

From an Original Article on "The Ménière Symptom-Complex—A Clinical Review" by Hill Hastings, M. D., Los Angeles.—I wish to present to you some case records of labyrinthine affections in which the Ménière symptom-complex occurred, to discuss those of special interest and to invite your discussion of the subject. I regret that I cannot hope to bring before you any new facts, nor do I presume to attempt a classification of nonsuppurative labyrinthine affections. . . .

From an Original Article on "Modern Therapy of Syphilis" by Victor Vecki, M. D., San Francisco.—Physicians advanced in years, successful in their profession and having acquired the self-reliance which real or fancied experience gives, can be divided into two classes: the one

(Continued in Front Advertising Section, Page 16)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By CHARLES B. PINKHAM, M.D.
Secretary-Treasurer

News

"John L. Brannely, Sacramento attorney, today filed a petition in the Sacramento County Superior Court for a writ of mandate to force the appointment of an osteopathic physician and surgeon to the post of supervisor of health and development in the Anderson Valley Union High School at Booneville, Mendocino County. In effect the petition charges the statute governing the appointment of school physicians is discriminatory, being restricted to medical doctors certified by the California State Board of Medical Examiners. . . . It is directed against the California State Board of Education. . . ." (Sacramento *Bee*, July 27, 1938.)

"Charging malicious prosecution, Paul F. Eid, former Burlingame physician who lost his right to practice on March 10 through action taken by the State Board of Medical Examiners, following Eid's arrest on a morals charge, filed suit last Monday for $25,500 damages from Burlingame Police Chief John J. Harper and Police Captain John J. Hartnett. This was Eid's second such suit, the first being filed on June 6 when the physician sought $25,000 from Harper, Hartnett, and Officers Carl H. Schwahn and Charles H. Thomas for false arrest. . . . In the complaint filed Monday, Eid claims that he was arrested at the Burlingame public library on the morals charge on November 3, 1937, and that the officers, taking advantage of his ignorance of the law, induced him to plead guilty. Eid was sentenced to ninety days in jail and fined $100 by Judge R. L. Stone. Eid claims to have lost his license to practice as a result." (Redwood City *Standard*, July 22, 1938.)

"Attorney General U. S. Webb has filed in the District Court of Appeal a petition for a writ of mandate to have set aside the judgment of Judge A. R. Cotton, ordering a new trial for Paul Eid, former Burlingame physician, on morals charges. Deputy District Attorney Burress Karmel contended that the assertion of Bernard Sharon, Eid's attorney, that the case had lapsed because no appeal had been taken within the allotted time, was in error. 'There was no possible appeal from Judge Cotton's order,' Karmel said. 'The petition for a writ is one means of getting the case before the higher court.' The district court has issued an alternative writ of mandate on Judge Cotton to show cause why the judgment should not be set aside. The Attorney General not only represents the people, but the State Board of Medical Examiners, which revoked Eid's license to practice medicine, Karmel explained. The former doctor charged that he was tricked into a plea of guilty to the morals charge. He was sentenced to ninety days in jail and fined $100. He served the term, did not pay the fine, and is free under a stay of execution pending determination of the case." (Redwood City *Tribune* July 25, 1938.) (Previous entries, April and May, 1938.)

"Dr. David V. Bush's scheduled lecture today had been indefinitely postponed, and scores of persons who gathered to hear it, but didn't, were getting the explanation today. Doctor Bush was arrested just before the lecture at his apartment, 833 South Grand Avenue, by Investigator W. N. Anderson of the State Medical Board on a warrant issued in 1935, charging him with practicing medicine without a license. He was booked at Glendale." (Los Angeles *Evening News*, July 7, 1938.)

"William A. Van Buren, sixty-three, was arrested by Special Agents of the State Medical Board yesterday on charges of masquerading as a physician. Van Buren was

(Continued in Front Advertising Section, Page 19)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

ONLY THESE SOLUTIONS ARE VACOLITER PROTECTED



B A X T E R ' S

INTRAVENOUS SOLUTIONS IN VACOLITERS

It takes less time . . . when you use Baxter's

In a matter of minutes, you or your assistant . . . with no other help . . . can bring a Vacoliter from the storeroom, open it, attach a tube and needle set . . . and have intravenous solutions flowing into the patient's vein . . . IF your hospital is using Baxter's Dextrose and Saline Solutions in Vacoliters.

Contrast this with waiting for fresh solutions to be prepared in the pharmacy and gathering together all the necessary accessories for an intravenous infusion.

Baxter's Solutions in Vacoliters are instantly available. They save time . . . they save you money . . . they allow your pharmacy more time for other duties. They bring to you a completely new and satisfying conception of intravenous routine. Doctors like to handle cases in hospitals where they know Baxter's Intravenous Solutions in Vacoliters are being used . . . they have come to depend on the convenience and simplicity of the Vacoliters. They appreciate the quality, the purity, the sterility, the *safety* of these fine solutions. They appreciate Baxter economy.



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Less Than $40 Per Month 1938 Home Cost.*—The average home owner in Northern California purchasing a newly built 1938 model house, financed under the FHA insured mortgage system, is "paying himself rent" amounting to less than $40 a month.

This is revealed in a review of records in the district office of the Federal Housing Administration covering mortgages accepted for insurance during the first seven months of this year.

It was reported that in this seven months' period 6,372 homes were built under FHA inspection within the forty-six counties of the Northern California district and financed under insured mortgages amounting to $30,677,300.

The average home of 1938, as assembled from FHA records, is five rooms in size, contains two bedrooms, tile bath, large living room with fireplace, a step-saving kitchen, and dinette or dining alcove. The formal dining room of yesteryear appears to be on the wane.

Mounted on concrete foundations, construction generally is wood, and, with terrace and patios, advantage is taken of every opportunity for living out of doors. Even a barbecue pit is becoming an essential of today's lower priced homes.

The total value of house and lot is between $5,000 and $6,000, and the average home is financed under an insured mortgage approximating $4,800. Under the new 90 per cent plan, with an insured mortgage written for the maximum term of twenty-five years, monthly payments covering all costs amount to $36.65.

A breakdown of these installments shows $28.08 allocated to payment on principal and five per cent interest, plus one dollar mutual mortgage insurance premium, or a total of $29.08 a month representing the cost of acquiring the home. Added to this is one-twelfth of the annual taxes, which average $6.82 on property of this value and 75 cents a month fire insurance premium, making a total less-than-rent payment of $36.65 a month.

By increasing the monthly payments to about $40, the insured mortgage would be entirely paid off within twenty years.

In financing these houses, mortgages amounting to $157,908,800 already have been selected for appraisal by the Federal Housing Administration on 35,826 homes in Northern California. Of this total, 10,776 mortgages amounting to $49,000,300 were submitted during the past seven months, 59 per cent of which represented new homes built under FHA inspection from approved plans and specifications.

Major and Minor Surgery.—In two recent communications, Hubert A. Royster makes a plea that the term "minor surgery" be eliminated from our nomenclature because of possible implications. He advances the argument that the labeling of certain procedures as minor may mislead an intern or a general practitioner into believing that any condition requiring surgical intervention can be regarded as minor. Only one of 104 surgeons whom he consulted believed the division of surgery into major or minor is justified. The principal objection to the term, it appears, is that it is vague and ill defined. There exist no definite criteria by which to designate any one procedure as minor or major. What appears to be a simple procedure may develop into the most complicated one. What is a minor operation in the hands of a skilful surgeon may prove a major one in the hands of the unskilled surgeon. Such criteria as time required to perform an operation, the mortality, the skill required, the question of anesthesia, the question of whether it can be performed in the office or requires hospitalization are all variables. The suggested substitutes for the term minor surgery, such as office surgery, ambulant surgery or dispensary surgery, are hardly an improvement. Royster argues that all surgery is based on the same fundamental principles, and is therefore not divisible. In no other field of medicine does a similar division into major and minor procedures exist. Actually the term minor surgery has largely disappeared from the curriculums of our leading medical schools.—*Journal of the American Medical Association*, August 13, 1938.

* This item is given space for the information of smaller societies contemplating erection of headquarters homes. From the San Francisco *News*, August 12, 1938.

ACCEPTED
AMERICAN MEDICAL ASSN.
Council on Pharmacy and Chemistry

SMITH, KLINE & FRENCH LABORATORIES

announce that

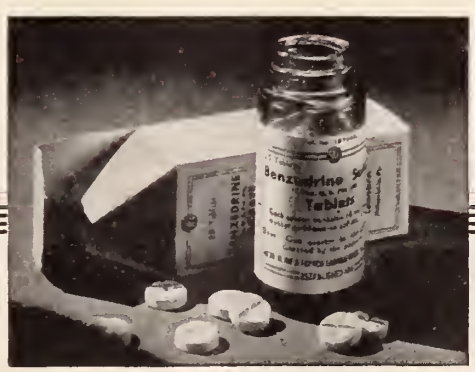
BENZEDRINE SULFATE TABLETS

have been accepted

by

The Council on Pharmacy and Chemistry
of the American Medical Association

The announcement of acceptance appeared in the July 2nd issue of the J. A. M. A.



Each 'Benzedrine Sulfate Tablet' contains amphetamine sulfate, 10 mg. (approximately 1/6 gr.)

The Council on Pharmacy and Chemistry of the A. M. A. has adopted amphetamine as the descriptive name for α-methylphenethylamine, the substance formerly known as benzyl methyl carbinamine. 'Benzedrine' is S. K. F.'s trademark for their brand of amphetamine.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.
Established 1841

Are the Neuritic Symptoms of Pregnancy *due to a deficiency of vitamins B₁ and G?*

SUCH common neuritic symptoms of pregnancy as pains in arms and legs, muscle weakness, and (less frequent but more serious) paralysis of the extremities may result from a shortage of antineuritic vitamins, recent investigations appear to show. Although neuronitis of pregnancy has long been considered a toxemia, no toxins have ever been identified.

Clinical observations of Strauss and McDonald lead to the conclusion that the condition is a dietary deficiency disorder similar to beriberi, caused by lack of vitamin B_1, complicated by symptoms which may be traced to shortage of vitamin G. They report recovery in their cases receiving this therapy, including dried brewers' yeast.

Hyperemesis as Cause of Avitaminosis

Wechsler observes that all cases of polyneuritis of pregnancy recorded in the literature were preceded by long periods of severe vomiting. "It would seem," he adds, "that because of actual starvation these patients suffered from avitaminosis and consequent neuritis," a view likewise held by Hirst, Luikart, and Gustafson. Plass and Mengert observe that the practice of giving high carbohydrate feedings for hyperemesis gravidarum is still more likely to cause avitaminoses B and G.

Dried brewers' yeast, as it is far richer than any other food in vitamins B_1 and G, is being used with benefit both in the prevention and treatment of polyneuritic symptoms of pregnancy. Lewy found that additions of yeast to the diet reduced electric irritability of the peripheral nerves and brought clinical improvement. Vorhaus states that he and his associates, after administering large amounts of vitamin B_1 to 250 patients having various types of neuritis, including that of pregnancy, observed in about 90% of cases "varying degrees of improvement, i.e., from partial relief of pain to complete disappearance of all symptoms."

Need for Vitamins B and G in Lactation

Evans and Burr, Hartwell, Sure and co-workers, and Macy *et al* are among numerous authorities who find that the nursing mother also needs supplements of vitamins B_1 and G, from 3 to 5 times the normal requirement. Tarr and McNeile report that the physical, mental, and emotional status of 120 pregnant and lactating women receiving Mead's Brewers Yeast and other foods high in vitamin B was superior to that of a control group of 116 women.



Since the management of polyneuritis of pregnancy is difficult at best, it would appear logical to supply those dietary substances which may safeguard against it. One of the richest and most convenient sources of the anti-neuritic factors, vitamins B1 and G, is Mead's Brewers Yeast Tablets. Consisting of nonviable yeast, they offer not less than 25 International vitamin B1 units and 42 Sherman vitamin G units per gram.

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The Migrant Flood Ebbs.*—Kern County's rebellion against migrants from the "dust bowl" has got well under way just when the worst is over, if latest reports from California's border checking-stations and the figures of Farm Security Administration can be relied upon.

"The tide has turned," announces a summary of latest information, published in Los Angeles. "California has routed the menace of the influx of migratory indigents. The trek now faces East. More are leaving the state than entering it."

And in support are quoted state quarantine officers at Yermo, near Daggett, Blythe, Fort Yuma, and Vidal on the Arizona border. "Okies' (Oklahomans) and 'Arkies' (Arkansans) now entering California are few and far between," says Robert M. Campbell at Blythe. "There has been a continued procession going East."

* From the San Francisco *News*, August 4.

(Continued on Page 39)



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Testimony to the same effect is given by W. V. Allen, Supervisor of the Farm Placement Service of the United States Employment Office at Los Angeles, who thinks the movement into the state has been exaggerated, with no account taken of those who leave. And Jonathan Garst, Coast director for Farm Security Administration, with headquarters in San Francisco, points out that the number of migrants receiving federal grants in Kern County has diminished from three thousand to less than five hundred.

Arrivals began to fall off just when FSA began its system of small cash grants, and for the same reason, says Mr. Garst. This reason was the distress of the dust-bowlers already here and its cause—the lack of employment. And Mr. Garst sees this as conclusive evidence that not relief but the hope of work is what attracted them here.

Other factors are at work. FSA has intensified its propaganda in the Middle West against California migration, giving this state its first dose of organized 'knocking" in the process—a "knocking" decidedly welcomed here by our most enthusiastic boosters. Also it has extended its grants and loans to distressed farmers and farm workers in their home states. And weather and crop conditions are better there.

* * *

Kern County has had its troubles, and at one time it had reason to be genuinely alarmed by the prospect of a growing and indefinitely prolonged influx of indigents. But our sympathy would be greater if its protest had not taken the form of an attack on FSA for its camp program and the meager cash grants that have kept thousands from actual starvation. It would have been either that for them or a heavy drain on the counties of the lower San Joaquin.

And Kern County must remember, too, its responsibility for the influx, incurred when, in 1937, it more than doubled its cotton acreage and offered inducements to the dust-bowlers, who were actually needed during the picking season. That cotton boom collapsed with overproduc-

(Continued on Next Page)

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(Continued from Preceding Page)

tion and low prices, and labor contractors today are no longer encouraged to advertise for more workers than the valleys can support.

California's farm labor problem has been a headache for generations, and in many respects the dust-bowlers offer more promise and less threat than did the Mexicans, Filipinos, and Japanese, who preceded them. These Middle Westerners out of luck are, after all, trifling in numbers when compared with the millions who have come into California under happier circumstances from the same region, in response to our advertising, and invested here their money and enterprise. A major dislocation and catastrophe has hit that broad region. Just as California profited enormously from Middle West prosperity it is now reaping a little of current Middle West misery.

And now that the flood of indigents has diminished we can afford better than ever to take the long view, to rebuke advocates of starvation as a policy, and to coöperate with the Federal Government in constructive measures to make the best—and the most—of what is both a problem and an opportunity.

Only the defeatist thinks California is through with growth and prosperity. In these Oklahomans we have potential good citizens who have already taken the place of unassimilable aliens in our fields and orchards.

The latest outcry against them follows announcement that WPA is to provide jobs for four thousand migrants in California. We have the assurance of WPA Administrator Lawson that these four thousand jobs are specially ear-marked at Washington and will not reduce the number of WPA jobs for Californians by so much as one. If Washington wishes to take four thousand dust-bowlers out of our crowded labor market and put them to work at useful projects for the benefit of our state, we fail to see any good reason to object. Nor, we are assured, will local objections be allowed to interfere with the plan by which applicants will be certified to WPA by FSA, thereby overcoming the refusal of the state relief administrator to certify them.

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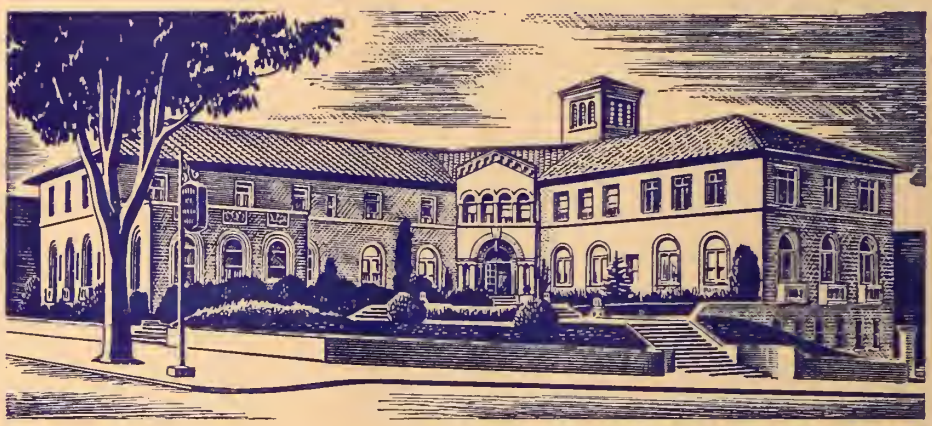
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T. Henshaw Kelly (Chairman)	San Francisco	1939
Philip K. Gilman	San Francisco	1939

Members of the Auditing Committee are appointed each year by the Chairman of the Council.

Committee on Associated Societies and Technical Groups

William H. Geistweit	San Diego	1939
John V. Barrow (Chairman)	Los Angeles	1940
Edwin L. Bruck	San Francisco	1941

Committee on Health and Public Instruction

W. R. P. Clark	San Francisco	1939
Benjamin W. Black	Oakland	1940
Fred B. Clarke (Chairman)	Long Beach	1941

Committee on History and Obituaries

J. Marion Read	San Francisco	1939
A. Elmer Belt	Los Angeles	1940
Frank R. Makinson (Chairman)	Oakland	1941

Secretary ex officio
Editor ex officio

Committee on Hospitals, Dispensaries and Clinics

W. Earl Mitchell (Chairman)	Oakland	1939
Karl L. Schaupp	San Francisco	1940
George Dawson	Napa	1941

Committee on Industrial Practice

Philip Stephens (Chairman)	Los Angeles	1939
Harry E. Zaiser	Orange	1940
Morton R. Gibbons	San Francisco	1941

Committee on Medical Defense

Fred R. De Lappe	Modesto	1939
John P. Nuttall	Santa Monica	1940
George G. Reinle (Chairman)	Oakland	1941

Committee on Medical Economics

William R. Molony, Sr.	Los Angeles	1939
Edward M. Pallette	Los Angeles	1940
John H. Graves (Chairman)	San Francisco	1941

Committee on Medical Education and Medical Institutions

Loren R. Chandler (Chairman)	San Francisco	1939
John B. Doyle	Los Angeles	1940
B. O. Raulston	Los Angeles	1941

Committee on Membership and Organization

Dewey R. Powell	Stockton	1939
G. Dan Delprat	San Francisco	1940
George D. Maner (Chairman)	Los Angeles	1941

Committee on Postgraduate Activities

F. F. Gundrum	Sacramento	1939
John C. Ruddock (Chairman)	Los Angeles	1940
F. E. Clough	San Bernardino	1941

Secretary ex officio

Committee on Publications

Oscar Reiss	Los Angeles	1939
Ralph Eusden (Chairman)	Los Angeles	1940
Ruggles A. Cushman	Talmage	1941

Secretary ex officio
Editor ex officio

Committee on Public Policy and Legislation

T. Henshaw Kelly	San Francisco	1939
E. T. Remmen	Glendale	1940
Junius B. Harris (Chairman)	Sacramento	1941

President ex officio
President-elect ex officio

Committee on Scientific Work

F. M. Pottenger	Monrovia	1939
Lemuel P. Adams	Oakland	1940
J. Homer Woolsey	Woodland	1941

William H. Barrow, Secretary of Section on General Medicine, ex officio
Ray B. McCarty, Secretary of Section on General Surgery, ex officio
George H. Kress (Chairman), ex officio.

Committee on Public Relations

The Committee on Public Relations consists of the chairmen of the following standing committees and of certain general officers of the Association, all serving ex officio. The chairman of the committee is George G. Reinle, the secretary is George H. Kress. The director of the Department of Public Relations is George H. Kress. The chairman of the Committee on Public Relations is ex officio a member of the Council.

Fred B. Clarke.....Chair., Com. on Health and Public Instruction
W. Earl Mitchell.....Chair., Com. on Hospitals, Dispensaries, Clinics
Philip Stephens.....Chair., Com. on Industrial Practice
George G. Reinle.....Chair., Com. on Medical Defense
George D. Maner....Chair., Com. on Membership and Organization
John H. Graves.....Chair., Com. on Medical Economics
Junius B. Harris.....Chair., Com. on Public Policy and Legislation
Alson R. Kilgore.....Chair., Cancer Commission
John C. Ruddock.....Chair., Com. on Postgraduate Activities
William W. Roblee.....President of California Medical Association
Charles A. Dukes.....President-elect
George H. Kress.....Secretary-Treasurer

Communications for the Public Relations Department should be addressed to the Director, George H. Kress, M. D., Room 2004, 450 Sutter Street, San Francisco.

Cancer Commission

Alson R. Kilgore (Chairman)	San Francisco	1939
Henry J. Ullmann	Santa Barbara	1939
Clarence G. Toland	Los Angeles	1939
Charles A. Dukes	Oakland	1940
Lyell C. Kinney (Vice-Chairman)	San Diego	1940
Otto H. Pflueger (Secretary)	San Francisco	1940
Orville Meland (Sec'y for Southern Section)	Los Angeles	1941
A. Herman Zeiler	Los Angeles	1941
Gertrude Moore	Oakland	1941

Communications for the Cancer Commission should be addressed to the Secretary, Otto H. Pflueger, M. D., Room 2004, 450 Sutter Street, San Francisco.

(Roster lists of officers of scientific section, component county societies, Woman's Auxiliary, A. M. A. delegates, special committees, etc., are continued on advertising pages 4 and 6.)

Prescribe *French* Vichy

Vichy Celestins is a *natural, still* mineral water of the alkaline type. Authorities agree on its usefulness as an adjuvant in gout, arthritis associated with uric acidemia, uricemia and nephrolithiasis of uric acid origin.

A valuable FREE booklet on the Therapeutic Value of Vichy, with medical bibliography will be sent to any physician on request.

American Agency of French Vichy, Inc., 198 Kent Ave., Brooklyn, N. Y.



The National Health Survey.—A report of a survey of illness among employed and unemployed workers, as announced by the Division of Public Health Methods, National Institute of Health, the United States Public Health Service, Washington, 1938, was recently brought off the press.

The project was conducted by the United States Public Health Service with the aid of financial grants from the Works Progress Administration. These reports are based on a house-to-house canvass of some 800,000 families, including 2,800,000 persons in eighty-three cities and twenty-three rural areas in nineteen states. The survey was made during the winter (largely from November to March) of 1935-1936. The total surveyed population was so distributed as to give a sample which was, in general, representative of cities in the United States according to size and region. In large cities (100,000 and over) the population to be canvassed was determined by a random selection of many small districts based on those used in the United States Decennial Census of 1930. In the smaller cities selected for study the population was enumerated completely.

Data obtained from the families surveyed include:

1. Composition and characteristics of the population are: age, sex, color, marital condition, nativity, usual occupation, employment status, family income and relief status, rent, number of rooms in the house, and sanitary facilities.

2. Several measures of illness for each person: (*a*) illness keeping a person from work, school, or other usual activity on the day of the canvass; (*b*) illness which had disabled a person in the above sense continuously for seven days or more during the twelve months preceding the date of the canvass; (*c*) chronic disease present, whether or not it had caused disability; (*d*) gross physical impairment, including lost and impaired legs, feet, arms, fingers, etc., and total or partial blindness and deafness.

3. Certain facts about the kind and amount of medical care: number of calls by doctors, days spent in hospital, days of private duty nursing, and the number of calls by a visiting nurse.

ISOPHRIN

TRADE MARK REG. CALIF.

A non-irritating Neo-Synephrin Solution used as a nasal spray or drops

ISOPHRIN is ¼% Neo-Synephrin Hydrochloride in a special isotonic solution prepared only by Broemmel Laboratories.

Neo-Synephrin Hydrochloride is a synthetic substance of epinephrine-like action, but possesses the advantage that it is more stable, its effects are prolonged, and it does not irritate the nasal mucosa or cause sneezing.

Prolonged contact with certain metals may cause discoloration, therefore use spray bottles with only glass or hard rubber fittings.

Supplied in original bottles of 1 oz.

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ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to promptly notify "California and Western Medicine" when changes are indicated in their roster information.)

Alameda County Medical Association
2404 Broadway, Oakland
President, Clarence A. DePuy, 230 Grand Avenue, Oakland.
Secretary, Gertrude Moore, 2404 Broadway, Oakland.
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

Butte County Medical Society
President, Raymond Kilduff, 322½ Meyers Street, Oroville.
Secretary, J. O. Chiapella, 131 Broadway, Chico.
Meeting, *Second Thursday.*

Contra Costa County Medical Society
President, Selby H. Marks, Grabstein Bldg., Pittsburg.
Secretary, Thomas J. Dozier, 202 G Street, Antioch.
Meeting, *Second Tuesday, 8 p. m.*

Fresno County Medical Society
President, Henry A. Randel, Box 2308, Fresno.
Secretary, Lester R. Nielson, 1006 Mattei Bldg., Fresno.
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

Humboldt County Medical Society
President, Francis M. Stump, Crescent City.
Secretary, Lawrence A. Wing, Fifth and F Streets, Eureka.
Meeting, *First Thursday.*

Imperial County Medical Society
President, Henry B. Graeser, 115 E. Fifth Street, Holtville.
Secretary, William A. Clarke, Holtville.
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

Kern County Medical Society
President, Harry W. Lange, Hopkins Bldg., Bakersfield.
Secretary, C. S. Compton, 428 C Street, Bakersfield.
Meeting, *Third Thursday, 8:30 p. m.*

Kings County Medical Society
President, P. K. Edmunds, Corcoran.
Secretary, William A. Johnstone, Hanford.
Meeting, *Second Monday, 8 p.m., Legion Hall, Hanford.*

Lassen-Plumas-Modoc County Medical Society
President, C. I. Burnett, Susanville.
Secretary, Fred J. Davis, Jr., Westwood.
Meeting, *On Call.*

Los Angeles County Medical Association
1925 Wilshire Boulevard, Los Angeles
President, Ralph B. Eusden, M. D., 412 Professional Bldg., 117 East 8th St., Long Beach.
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

Marin County Medical Society
President, W. Scott Polland, Albert Building, San Rafael.
Secretary, Carl W. Clark, 510 B Street, San Rafael.
Meeting, *Fourth Thursday, 6:30 p. m., Marin Golf and Country Club.*

Mendocino-Lake County Medical Society
President, Charles A. Craig, Lakeport.
Secretary, Robert B. Smalley, Willits.
Meeting, *On Call.*

Merced County Medical Society
President, E. M. Soderstrom, Merced.
Secretary, Fred O. Lien, Shaffer Bulding, Merced.
Meeting, *Third Thursday, Hotel Tioga, Merced.*

Monterey County Medical Society
President, Curtis B. Gorham, 215 Franklin Street, Monterey.
Secretary, Harold R. Lusignan, 215 Franklin Street, Monterey.
Meeting, *First Thursday.*

Napa County Medical Society
President, Walter Rapaport, Imola.
Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

Orange County Medical Society
President, G. Wendell Olson, 211 No. Pomona St., Fullerton.
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital, Orange.*

Placer County Medical Society
President, C. Ettrick Lewis, 59 Lincoln Ave., Auburn.
Secretary, Robert A. Peers, Colfax.
Meeting, *At Call of President.*

Riverside County Medical Society
President, D. D. Roos, Corona.
Secretary, Thomas A. Card, 3616 Main Street, Riverside.
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

Sacramento Society for Medical Improvement
President, Dave Dozier, California State Life Building, Sacramento.
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

San Benito County Medical Society
President, J. M. O'Donnell, Hollister.
Secretary, L. E. Smith, Hollister.
Meeting, *At Call of President.*

San Bernardino County Medical Society
President, Delbert B. Williams, 401 North Eighth Street, Colton.
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

San Diego County Medical Society
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, Bryant R. Simpson, 1205 Medico-Dental Building, San Diego.
Secretary, W. H. Newman, Medico-Dental Building, San Diego.
Meeting, *Second Tuesday, El Cortez Hotel.*

San Francisco County Medical Society
2180 Washington Street, San Francisco
President, William C. Voorsanger, 490 Post St., San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

San Joaquin County Medical Society
President, A. C. Boehmer, Box 306, Lodi.
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

San Luis Obispo County Medical Society
President, Frederick R. Mugler, 1170 Marsh Street, San Luis Obispo.
Secretary, E. M. Bingham, County Health Department, San Luis Obispo.
Meeting, *Third Saturday, 6:30 p. m., Mulholland's Grill, San Luis Obispo.*

San Mateo County Medical Society
President, Hartzell H. Ray, 23 Second Avenue, San Mateo.
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

Santa Barbara County Medical Society
President, E. J. Lamb, 1515 State Street, Santa Barbara.
Secretary, J. Jerome Rupp, 101 Mesa Lane, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

Santa Clara County Medical Society
President, E. O. G. Schmitt, 608 Medico Dental Bldg., San Jose.
Secretary, Leslie B. Magoon, Medico-Dental Building, San Jose.
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

Santa Cruz County Medical Society
President, Dean S. Woodard, Stoesser Bldg., Watsonville.
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.
Meeting, *First Monday, 7:30 p. m., Club Rio del Mar, Aptos.*

Shasta County Medical Society
President, Mathew D. Pratt, Fall River Mills.
Secretary, Morton J. Murphy, Shasta County Hospital, Redding.
Meeting, *Second Monday.*

Siskiyou County Medical Society
President, J. B. McGuire, Mt. Shasta.
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.
Meeting, *Second Sunday.*

Solano County Medical Society
President, Ream S. Leachman, 727 Sonoma St., Vallejo.
Secretary, John W. Green, Box 539, Vallejo.
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

Sonoma County Medical Society
President, Alfred A. Thurlow, 505 B St., Santa Rosa.
Secretary, C. M. Carlson, 534 B Street, Santa Rosa.
Meeting, *Second Thursday.*

Stanislaus County Medical Society
President, Joseph L. Azevedo, Jr., 1024 "J" Street, Modesto.
Secretary, Hoyt R. Gant, 401 Beaty Building, Modesto.
Meeting, *Second Friday.*

Tehama County Medical Society
President, Donald E. Thompson, Red Bluff
Secretary, F. J. Bailey, Red Bluff.
Meeting, *At Call of President.*

Tulare County Medical Society
President, E. R. Zumwalt, Tulare.
Secretary, Karl F. Weiss, Security First National Bank Building, Visalia.
Meeting, *Sunday Evening once a month*

Ventura County Medical Society
President, Grundy C. Coffey, Bank of America Building, Ventura.
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.
Meeting, *Second Tuesday, Ventura County Country Club.*

Yolo-Colusa-Glenn County Medical Society
President, Charles S. Roller, Woodland Clinic, Woodland.
Secretary, W. J. Blevins, Jr., Woodland.
Meeting, *First Tuesday.*

Yuba-Sutter County Medical Society
President, Neal M. Loomis, Yuba City.
Secretary, Fred W. Didier, Wheatland.
Meeting, *Second Tuesday.*

(Roster lists continued on advertising page 6)

DOCTORS AGREE



PHYSICIANS who have prescribed MALTINE WITH COD LIVER OIL prefer it for three reasons:

FIRST: It is palatable. Because MALTINE WITH COD LIVER OIL has no unpleasant taste, it is especially appreciated by children.

SECOND: It is a time-tested product. MALTINE WITH COD LIVER OIL has maintained its high standard of quality for 63 years.

THIRD: It is packed in a generously large bottle. The size of the package of MALTINE WITH COD LIVER OIL is an added convenience for physician and patient—18 full fluid ounces. The Maltine Company, 21 West St., New York City.

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WITH COD LIVER OIL
Introduced 1875

How to Give Cod-Liver Oil.—Some authorities recommend that cod-liver oil be given in the morning and at bedtime when the stomach is empty, while others prefer to give it after meals in order not to retard gastric secretion. If the mother will place the very young baby on her lap and hold the child's mouth open by gently pressing the cheeks together between her thumb and fingers while she administers the oil, all of it will be taken. The infant soon becomes accustomed to taking the oil without having its mouth held open. It is most important that the mother administer the oil in a matter-of-fact manner, without apology or expression of sympathy.

If given cold, cod-liver oil has little taste, for the cold tends to paralyze momentarily the gustatory nerves. As any "taste" is largely a metallic one from the silver or silverplated spoon (particularly if the plating is worn), a glass spoon has an advantage.

On account of its higher potency in vitamins A and D, Mead's Cod-Liver Oil Fortified with Percomorph Liver Oil may be given in one-third the ordinary cod-liver oil dosage, and is particularly desirable in cases of fat intolerance.

Health Safeguards.—Facilities for attending to every medical emergency, from a finger-scratch to childbirth, have been arranged by the Department of Medicine and Public Health of the New York World's Fair in 1939. There are to be ten first-aid stations on the grounds, a large corps of physicians and surgeons, nearly one hundred nurses, ten motor ambulances and a mobile x-ray truck to speed to the scene of any accident to make "pictures" of any injury as quickly as possible.

"The health educator must be all things to all health officers. He must be cancer crusader for the cancer control division; syphilis fighter for the venereal disease clinic; mosquito hunter for the malaria unit; case finder for the tuberculosis forces, even midwife for the prenatal clinic."—*The Health Officer.*

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THE LONDON LANCET says: "There are two spots in the world with the most equable climate. One is Assuan, Egypt, the other is a little town in the foothills of the Santa Cruz Mountains in California, called Los Gatos."

Rates, Information and Booklet on Request

OFFICERS OF SCIENTIFIC SECTIONS, CALIFORNIA MEDICAL ASSOCIATION

Anesthesiology

Chairman, John G. Dunlop, 168 So. Kingsley Drive, Los Angeles.
Secretary, Adena C. Dutton, 1955 Broadway, San Francisco.

Dermatology and Syphilology

Chairman, Norman N. Epstein, 450 Sutter Street, San Francisco.
Vice-Chairman, Franklin I. Ball, 6253 Hollywood Boulevard, Hollywood.
Secretary, Arne E. Ingels, 490 Post Street, San Francisco.

Eye, Ear, Nose and Throat

Chairman, Clifford B. Walker, 427 West Fifth Street, Los Angeles.
Vice-Chairman, Harry J. Wiley, 2701 Florence Street, Huntington Park.
Secretary, Dewey R. Powell, 242 No. Sutter Street, Stockton.

General Medicine

Chairman, Howard F. West, 602 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.
Secretary, William H. Barrow, 1400 Medico-Dental Building, San Diego.

General Surgery

Chairman, Loren R. Chandler, Stanford University Medical School, San Francisco.
Secretary, Ray B. McCarty, 3616 Main Street, Riverside.
Assistant Secretary, Frederick S. Foote, Dante Hospital, San Francisco.

Industrial Medicine and Surgery

Chairman, Harvey G. McNeil, 523 West Sixth Street, Los Angeles.
Vice-Chairman, George H. Sanderson, 242 North Sutter Street, Stockton.
Secretary, John S. Stephens, 1136 W. Sixth Street, Los Angeles.

Neuropsychiatry

Chairman, John B. Doyle, 1930 Wilshire Boulevard, Los Angeles.
Secretary, George S. Johnson, Stanford University Hospital, San Francisco.

Obstetrics and Gynecology

Chairman, George W. Coon, 3770 Twelfth Street, Riverside.
Vice-Chairman, John N. Ewer, 411 Thirtieth Street, Oakland.
Secretary, William Benbow Thompson, 1930 Wilshire Boulevard, Los Angeles.

Pathology and Bacteriology

Chairman, Alvin G. Foord, Huntington Memorial Hospital, Pasadena.
Secretary, Roy W. Hammack, 657 South Westlake Boulevard, Los Angeles.
Assistant Secretary, Paul H. Guttman, 1127 Eleventh Street, Sacramento.

Pediatrics

Chairman, Harold K. Faber, Stanford Hospital, San Francisco.
Secretary, Hartzell H. Ray, 23 Second Avenue, San Mateo.
Assistant Secretary, W. W. Belford, 601 Medico-Dental Building, San Diego.

Radiology

Chairman, Karl M. Bonoff, 1930 Wilshire Boulevard, Los Angeles.
Secretary, Carl D. Benninghoven, Mills Memorial Hospital, San Mateo.

Urology

Chairman, Carl F. Rusche, 905 Taft Building, 1680 North Vine Street, Hollywood.
Secretary, John A. Dougherty, 3115 Webster Street, Oakland.

Delegates and Alternates to the American Medical Association

DELEGATES		ALTERNATES
Elbridge Best, San Francisco	(1938-1939)	Robert S. Stone, San Francisco
Lyell C. Kinney, San Diego	(1938-1939)	Bon. O. Adams, Riverside
J. P. Nuttall, Los Angeles	(1938-1939)	F. M. Pottenger, Los Angeles
George G. Reinle, Oakland	(1939-1940)	Frank R. Makinson, Oakland
Edward M. Pallette, Los Angeles	(1939-1940)	William H. Kiger, Los Angeles
Robert A. Peers, Colfax	(1939-1940)	F. F. Gundrum, Sacramento
William R. Molony, Sr., Los Angeles	(1939-1940)	John C. Ruddock, Los Angeles

Special Committees

Committee on Animal Experimentation

Philip Gilman, Chairman
Charles A. Dukes — Loren R. Chandler

Committee on Maternal Welfare

T. Henshaw Kelly — San Francisco
Lyle G. McNeile — Los Angeles
Ralph J. Thompson — Los Angeles
T. Floyd Bell — Oakland
Hans F. Schluter — Sacramento

Committee on Golden Gate International Exposition

T. Henshaw Kelly, Chairman
Edward M. Pallette — Charles A. Dukes
Karl F. Meyer — Hartley F. Peart

Committee on Hospitals

Louis A. Packard, Chairman — Bakersfield
Axcel E. Anderson — Fresno
Calvert L. Emmons — Ontario

Committee on Syphilis

Howard Morrow, Chairman — San Francisco
Charles W. Barnett — San Francisco
William H. Goeckerman — Los Angeles

Committee on a Qualifying Certificate (Basic Science) Law

George H. Kress, (General Chairman) San Francisco

Morton R. Gibbons, Chairman (for Bay Region), San Francisco

Edward M. Pallette, Chairman (for Southern California), Los Angeles

Junius B. Harris, Chairman (for Remainder of State), Sacramento

Woman's Auxiliary to the California Medical Association

State Auxiliary Officers

President, Mrs. Clifford A. Wright, 454 So. Irving Boulevard, Los Angeles.
President-Elect, Mrs. Frederick N. Scatena, 1400 Forty-first Street, Sacramento.
First Vice-President, Mrs. A. E. Anderson, 1035 Cambridge Street, Fresno.
Second Vice-President, Mrs. George Calvin, 277 Euclid Avenue, Oakland.
Recording Secretary, Mrs. G. Wendell Olsen, 219 Buena Vista Drive, Fullerton.
Corresponding Secretary, Mrs. E. Eric Larson, 126 Fremont Place, Los Angeles.
Treasurer, Mrs. Harry O. Hund, 400 Grand Avenue, San Rafael.

Officers of County Auxiliaries

Alameda County — President, Mrs. Frank Baxter, 33 Bowling Drive, Oakland.
Butte County—President, Mrs. N. T. Enloe, 488 East Third Street, Chico.
Contra Costa County—President, Mrs. Melvin A. Stauffer, Pittsburg.
Fresno County—President, Mrs. C. M. Vanderburgh, 518 Terrace Ave., Fresno.
Kern County—President, Mrs. P. N. Root, 2214 Cedar St., Bakersfield.
Lassen-Plumas-Modoc County — President. Mrs. G. R. Fortson, 912 Lassen Street, Susanville.
Los Angeles County—President, Mrs. William H. Leake, 609 North Palm Drive, Los Angeles.
Marin County—President, Mrs. Bernard J. Conroy, 402 Cascade Drive, Fairfax.
Merced County—President, Mrs. E. M. Soderstrom, 49 Twenty-second Street, Merced.
Monterey County — President, Mrs. Garth Parker, 430 So. Main Street, Salinas.
Orange County—President, Mrs. Hiram Currey, 2101 North Ross Street, Santa Ana.
Riverside County—President, Mrs. W. W. Roblee, 3117 Orange Ave., Riverside.
Sacramento County—President, Mrs. George Spencer, 1915 Twenty-first Street, Sacramento.
San Diego County—President, Mrs. Chester O. Tanner, 2454 Presidio, San Diego.
San Francisco County — President, Mrs. Thomas E. Gibson, 2205 Pacific Avenue, San Francisco.
San Joaquin County—President, Mrs. George K. Wever, 2413 Dwight Way, Stockton.
San Luis Obispo County—President, Mrs. Charles R. Kennedy, 1233 Olive Street, Paso Robles.
San Mateo County — President, Mrs. Carl Benninghoven, 140 Clark Drive, San Mateo.
Santa Barbara County—President, Mrs. H. E. Henderson, 1600 Oramus Road, Santa Barbara.
Santa Clara County—President, Mrs. M. D. Baker, 1142 Lincoln Ave., San Jose.
Santa Cruz County—President, Mrs. Alfred L. Phillips, 220 Escalon Drive, Santa Cruz.
Tulare County—President, Mrs. J. C. McClure, Box 36, Lindsay.

Miscellaneous California Medical Organizations

Department of Public Health of the State of California

San Francisco—State Office Building, McAllister and Larkin Streets, UNderhill 8700.
Sacramento—State Office Building, Tenth and L streets. CApital 2800.
Los Angeles—State Office Building, 217 West First Street. MAdison 1281.
President, Howard Morrow, San Francisco.
Director, Walter M. Dickie, State Building, San Francisco.

California Northern District Medical Society

President—John H. White, Chico.
Secretary—J. Homer Woolsey, Woodland Clinic, Woodland.

Board of Medical Examiners of the State of California

San Francisco, Room 214, 515 Van Ness Avenue.
Los Angeles, 906 State Building.
Sacramento, 420 State Office Building.
President, William R. Molony, Sr., Los Angeles.
Secretary, C. B. Pinkham, Room 214, 515 Van Ness Avenue, San Francisco.

Southern California Medical Association

President, William H. Barrow, 1400 Medico-Dental Building, San Diego.
Secretary, John B. Doyle, 501 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

The Public Health League of California

Executive Secretary, Ben H. Read. San Francisco office, 450 Sutter Street, Los Angeles office, Room 563, 1151 South Broadway.

Better Health Foundation

President, Reginald Knight Smith,* 490 Post Street, San Francisco.
Chairman, Executive Committee, Walter B. Coffey, 65 Market Street, San Francisco.
Treasurer, John Gallwey, 1195 Bush Street, San Francisco.
Secretary, Celestine J. Sullivan, 490 Post Street, San Francisco.

* Deceased.

RECENT ADVANCES IN THE SCIENCE OF NUTRITION

II. Newer Knowledge of the P-P Factor and the Control of Endemic Pellagra

● The years since 1932, when the P-P factor was known variously as vitamin B_2 or G, have been especially marked by contributions to our knowledge of the anti-pellagric vitamin. Considerable progress has also been made in the treatment of human pellagra as well as in the control of the disease. It might be of interest to review briefly a few of the outstanding developments in this field.

The P-P factor is now accepted as being closely related chemically to nicotinic acid if, indeed, it is not identical with that compound (1). Nicotinic acid has been used successfully in the treatment of human pellagra (2) and there is evidence to support the belief that the P-P factor is intimately associated with essential enzyme reactions in the body (3). A laboratory test has been devised for the early clinical detection of pellagra (4) and there is today better agreement as to the basic dietary requirements for the management of florid pellagra (1).

While the situation as regards endemic pellagra has, in general, shown improvement during recent years, an occasional report indicates that endemic pellagra still constitutes a major medical problem in some localities (5). Authorities agree that the old adage relating to an ounce of prevention being the equal of a pound of cure applies particularly well in the case of pellagra. Consequently, in specific regions of this country certain control measures have been advocated in an endeavor to bring this deficiency disease under permanent control. The most promising of these measures are the issuance of yeast rations and popular education to the desirability of home production of foods rich in the P-P factor, especially during late winter and early spring. The problem of permanent control of pellagra has been clearly and briefly defined as follows:

> "The prevention of endemic pellagra is simple in theory but difficult in practice. If every normal person received enough of the foods containing the pellagra-preventive vitamin there would be no endemic pellagra.—Permanent control can be obtained only by bringing about permanent changes in dietary habits" (1).

The correction of those long-standing dietary malpractices which are responsible for pellagra is certain to be brought about only slowly. The concerted and sustained efforts of all agencies concerned with public health will be required, not only to insure observance of the control measures described above, but also to educate the potential pellagrin to the necessity of a varied diet of protective foods.

Commercially, canned foods may play an important part in the current program designed to bring pellagra under control. Several hundred varieties of canned foods are readily available on every American market at all seasons of the year. Judicious inclusion in the diet of those foods known to be important carriers of the anti-pellagric factor (1) should materially assist in effecting permanent control of endemic pellagra in America.

AMERICAN CAN COMPANY
230 Park Avenue, New York, N. Y.

(1). 1938. J.A.M.A. 110, 1665.
(2). 1938. J.A.M.A. 111, 584.
1938. Ibid. 111, 613.
1938. Ibid. 110, 289.
(3). 1938. J.A.M.A. 111, 28.
(4). 1938. J. Med. Assn. State of Alabama. 8, 52.
(5). 1938. J. Med. Assn. State of Alabama. 7, 475.

This is the forty-first in a series of monthly articles, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research. We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.

ACCEPTED AMERICAN MEDICAL ASSN. Council on Foods

The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

ALPHABETICAL LIST OF ADVERTISERS

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Members and readers are urged to give preference to and to patronize these advertisers. When ordering goods, mention California and Western Medicine.

This coöperation will please the advertiser, increase advertising income, and enable your Association to increase the value of this Journal to members and readers.

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The Journal of the California State Medical Association and the Coöperative Medical Advertising Bureau of Chicago maintain a Service Department to answer inquiries from you about manufactured products, such as soaps, clothing, automobiles, etc., which you may need in your home, office, sanitarium or hospital, or we will refer your request to the proper department of the A. M. A. for reply.

We invite and urge you to use this Service. It is absolutely *free* to every member of the California Medical Association. The Coöperative Bureau is equipped with catalogues and price lists of manufacturers, and can supply you information by return mail.

Perhaps you want a certain kind of instrument which is not advertised in California and Western Medicine, and do not know where to secure it; or do not know where to obtain some automobile supplies you need. This A. M. A. Service Bureau will give you the information. Whenever possible, the goods will be advertised in our pages; but if they are not, we urge you to write direct to the Coöperative Medical Advertising Bureau, 535 N. Dearborn Street, Chicago, Illinois. California and Western Medicine and the A. M. A. Service Bureau desire to serve *you*.

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Write today for full details

NICHOLS NASAL SYPHON, Inc.

Dept. CC, 144 E. 34th St., N. Y. C.

Doctors in Embryo.—The annual review of medical education presents a summary of the most important phases of medical education in the United States and Canada. These data show the kind and extent of preliminary education which is required for admission to medical schools, also the requirements for graduation and licensure. The number of schools and the number of medical students over a period of more than thirty years show clearly the effects of raising educational standards and, more recently, of the enormous increase of the college population since the war. During the past year there were in the United States 5,194 medical graduates, of whom 237 were women. Some 636 foreign graduates were licensed. Regardless of academic or legal requirements, practically all students serve a hospital internship and many prolong this training by a further period of apprenticeship as hospital residents. The lists of hospitals approved for these purposes is, therefore, of inestimable value. The supervision of medical schools by the Council on Medical Education and Hospitals through periodic reports and personal visitation is a potent factor in raising the standards of medical education and practice.—*Journal of the American Medical Association*, August 27, 1938.

We should endeavor to get ideas from those who conceived or created them, thus bringing directly to bear upon our lives their wisdom and conceptions of beauty. Not content with the distorted impressions of second-hand report, we should let creative men speak directly to us. How can this be done? By coming to know their lives and their works—the books they wrote, the truths they established, the principles of ordered society they laid down, the songs they composed, the pictures and statues they made, and the cathedrals they built. They quicken us to our best; they are the great teachers of the race.

Airplane pilots suffer more frequently from disturbances of the middle ear than from all other occupational diseases combined.—Armstrong.

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OBSTETRICS—Two Weeks Intensive Course starting October 24th. Informal Course starting every week.

FRACTURES AND TRAUMATIC SURGERY—Informal Course every week; Intensive Formal Course starting February 6th, 1939.

DERMATOLOGY AND SYPHILOLOGY—Clinical Course starting every week.

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General, Intensive and Special Courses in all branches of Medicine, Surgery and the Specialties every week.

•

TEACHING FACULTY — ATTENDING STAFF OF COOK COUNTY HOSPITAL

Address: Registrar, 427 South Honore Street, Chicago, Ill.

HOSPITALS AND SANATORIUMS

The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

ALUM ROCK SANATORIUM
For Treatment of Tuberculosis
San Jose, California

CALIFORNIA SANITARIUM
For Treatment of Tuberculosis
Belmont, California

CANYON SANATORIUM
For Treatment of Tuberculosis
Redwood City, California

CEDAR LODGE
For Treatment of Alcoholic and Narcotic Addiction Diseases
2030 Griffith Park Boulevard, Los Angeles

COLFAX SCHOOL FOR THE TUBERCULOUS
For the Treatment of Tuberculosis
Colfax, California

COMPTON SANATORIUM AND LAS CAMPANAS HOSPITAL
Neuropsychiatric and General
Compton, California

FRANKLIN HOSPITAL
Limited General Hospital
Fourteenth and Noe Streets, San Francisco

FRENCH HOSPITAL
General Hospital
Geary at Fifth Avenue, San Francisco

GREENS' EYE HOSPITAL
Consultation, Diagnosis and Treatment of Diseases of the Eye
Bush and Octavia Streets, San Francisco

LAS ENCINAS SANITARIUM
Nervous and General Diseases
Las Encinas, Pasadena, California

LIVERMORE SANITARIUM
Nervous and General Diseases
Livermore, California

OAKS SANITARIUM
For Treatment of Tuberculosis
Los Gatos, California

POTTENGER SANATORIUM AND CLINIC
For the Treatment of Tuberculosis
Monrovia, California

PARK SANITARIUM
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PHYSICIANS' AND SURGEONS' TELEPHONE EXCHANGE • NURSES' BUREAU

No Medicinal Remedy Effective Against Bang's Disease.—No drug or combination of drugs has yet been found effective in the treatment of Bang's disease, according to United States Department of Agriculture officials engaged in combating this cattle malady. Results of recent tests of two alleged Bang's disease remedies confirm previous experience with such products.

Conducted by trained investigators of the Federal Bureau of Animal Industry and the University of Wisconsin, the tests showed the products to be of no value as either preventives or cures. Chemical analysis of the alleged remedies also failed to disclose any ingredients likely to have any beneficial effect in combating Bang's disease.

The malady is caused by a germ, known scientifically as Brucella abortus, and the principal manifestation is abortion. Before the true nature of the disease was well understood, federal officials explain, it was natural to suppose that medicinal substances could be used to advantage in preventing animals from aborting. This view was so widely entertained and advanced for years that it has been difficult to convince livestock owners of its falsity.

Testimonials relating to alleged medicinal cures or preventives have sometimes been so extravagant as to be alluring to the discouraged stock owner. Medicinal substances for the treatment of this disease have gained their popularity, almost if not entirely, because they were used and their value was judged at a time when the disease had run its natural course and abortions had markedly decreased as a result of an immunity acquired from the first infection.

In an outbreak of Bang's disease in a herd, the malady affects the pregnant cows and within a period of one or two years a large proportion of cows abort. Some few cattle recover from the disease and thereafter remain immune or free from infection; others become carriers of the germ. The latter may produce normal calves or may again abort, but in either case at time of calving may spread the infectious agent to susceptible cattle.

Although no drug or medicinal compound has proved to be effective against the disease, steady progress is being made by systematic testing of herds, the removal and slaughter of diseased animals, and maintenance of proper sanitary conditions. This work is conducted coöperatively by cattle owners, state livestock officials, and the Bureau of Animal Industry, United States Department of Agriculture. In addition, officials engaged in control work report promising results from calfhood vaccination and, in some cases, from the use of approved methods of segregation combined with testing.

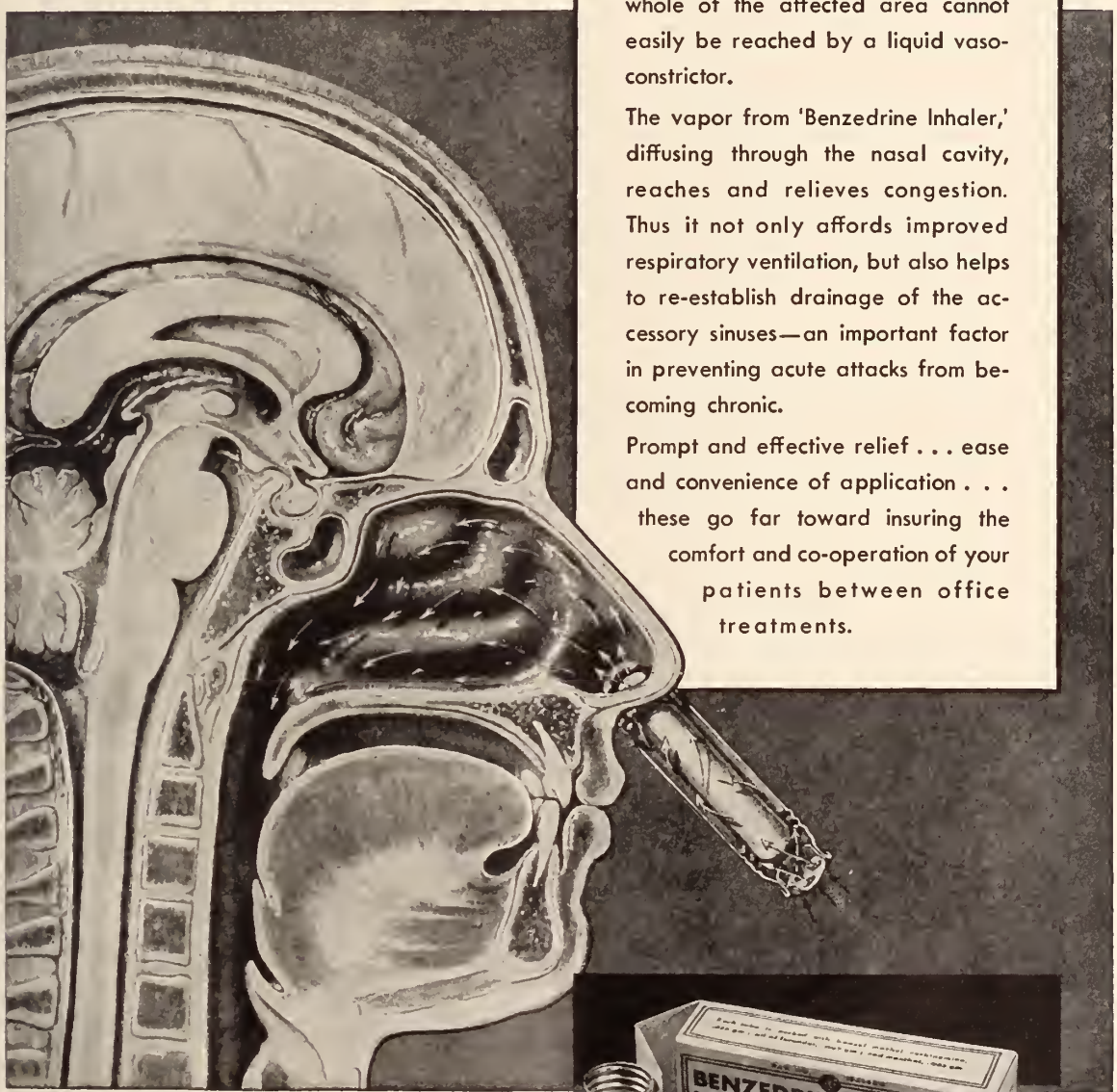
When you meet with a fact opposed to a prevailing theory, you should adhere to the fact and abandon the theory, even when the latter is supported by great authorities and is generally adopted.—Claude Bernard.

IN SINUSITIS

In sinusitis 'Benzedrine Inhaler' is especially useful. The structure of the rhinological tract is so complicated that, when congestion is present, the whole of the affected area cannot easily be reached by a liquid vasoconstrictor.

The vapor from 'Benzedrine Inhaler,' diffusing through the nasal cavity, reaches and relieves congestion. Thus it not only affords improved respiratory ventilation, but also helps to re-establish drainage of the accessory sinuses—an important factor in preventing acute attacks from becoming chronic.

Prompt and effective relief . . . ease and convenience of application . . . these go far toward insuring the comfort and co-operation of your patients between office treatments.





ACCEPTED AMERICAN MEDICAL ASSN.

BENZEDRINE INHALER

A Volatile Vasoconstrictor

Each tube is packed with amphetamine, S.K.F., 0.325 Gm.; oil of lavender, 0.097 Gm.; menthol, 0.032 Gm. 'Benzedrine' is S.K.F.'s trademark, Reg. U. S. Pat. Off., for their nasal Inhaler and for their brand of amphetamine. Amphetamine was formerly known as benzyl methyl carbinamine, Pat. Nos. 1879003, 1921424 and 2015408.

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CLASSIFIED ADVERTISEMENTS

Rates for these insertions are $4 for fifty words or less; additional words 5 cents each.

COACHING FOR STATE BOARDS — MEDICAL AND Dental. Arthur H. White, M. D., Suite 1005, Flood Building, San Francisco.

COACHING FOR STATE MEDICAL BOARD—CHARLES L. Rubenstein, M. D., 450 Sutter Street, Suite 1612. Telephone SUtter 4576.

WANTED: WELL TRAINED YOUNG INTERNIST TO join California group. Must be Protestant, age 30 to 35. Send complete biography first letter. Address, Box 1000, care of California and Western Medicine, 450 Sutter Street, San Francisco.

WANTED: ASSISTANTSHIP WITH ESTABLISHED PHYsician and surgeon in California on guaranteed salary basis; approved rotating internship and general county hospital residency; Grade A school; California license; married; Protestant; age 29; have car; desire to locate permanently at once; give full particulars, maximum salary in first letter. Address Box 1020, care of California and Western Medicine, 450 Sutter Street, San Francisco.

Federal Food and Drug Administration Begins Work Under Revised Drug Law.—The month of July saw the beginning of enforcement operations under the Federal Food, Drug, and Cosmetic Act of 1938, which within a year will supplant the 32-year-old Federal Food and Drugs Act. Dangerous drugs and dangerous cosmetics are immediately subject to the new law. Federal inspectors last month located and caused the seizure of 121 packages of "Magic Di-Stik" and 275 packages of "Lash Lure," products of like composition, implicated in the past few years in many cases of severe eye irritation and injury.

As a result of these actions, the Food and Drug Administration advises, the manufacturer of "Lash Lure" notified them through its attorney on July 26 it was "ceasing shipments forthwith."

Action was also brought last month against an aminopyrin preparation called "Causalin," charges being drawn under both the old and the new laws. It was alleged under the old law that the subsidiary label statement "Aminodimethylpyrazolon-Quinolinesulphonate" was a false representation of the composition of the medicine, since other significant ingredients were present. Under the new law, it was alleged that the product, a pain-relieving preparation, "is dangerous to health when used in the dosage or with the frequency prescribed, recommended, and suggested in the labeling thereof." A total of twenty-three packages were seized. . . .

Medicinals and Related Products Seized

Activities in the field of medicinals and related products brought the confiscation of 5,636 packages of unsterile gauze bandages, 437 packages of unsterile absorbent cotton, and 17 packages of unsterile cotton-tipped swabs, all of which were represented in the labeling as "sterile"; 35 gross of defective mechanical prophylactics; 9 bottles and 1,700 capsules of adulterated sandalwood oil.

Other confiscations: 60 bottles of "milk of magnesia with cascara" and 63 bottles of "milk of magnesia with vanilla and sugar," both failing to conform to their label claims of composition; a shipment of "Pariogen Tablets," not antiseptic as claimed; and the following patent medicines which carried unsubstantiable label claims of therapeutic efficacy; Anti-Cholelith (for gallstones), Fisher's PPP, Fisher's Columbine Massage Cream, Fisher's Massage Liniment, Fisher's Gastric Assimilator, and Lal Tablets.

Nine criminal prosecutions were terminated with fines during July, the current report states. Four involved shippers of foods, and five shippers of drug preparations. The terminations were as follows: Laramie Valley Creamery, Laramie, Wyoming, low-fat and short-weight butter, fine $100; Sweet Grass County Creamery, Big Timber, Montana, moldy butter, fine $5; George W. Bagwell, Chattanooga, Tennessee, short-weight preserves, and honey, both short in weight and adulterated with glucose, fine $150; Leo Terkanian, alias Leo Tucker, Phoenix, Arizona, excessively dried grapefruit, fine $200.

Blackman & Blackman, Inc., and Theodore A. Blackman, New York, N. Y., fined $300, Larche Labs., Inc. (Jack Rudolph and Albert A. Larche), Denver, Colorado, fined $300, and Rovin Therapeutic Products, Inc., Detroit, Michigan, fined $500, for shipments of substandard pharmaceuticals; Emma L., Carrie B., and William H. Van Gorder, trading as Dr. J. Cannon Salve Co., Ltd., Petoskey, Michigan, "Cannon's Salve," a misbranded patent medicine, fines totaling $75; and Healthagain Labs., Inc., Wellsburg, West Virginia, "Healthagain," fine $240 and costs.

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BOOKS RECEIVED

BOOKS RECEIVED

Triumph Over Pain. By René Fülöp-Miller. Translated by Eden and Cedar Paul. Cloth. Pp. 438, with illustrations. Price, $3.50. Indianapolis: The Bobbs-Merrill Company, 1938.

Refraction of the Eye. By Alfred Cowan, M. D., Associate Professor of Ophthalmology, Graduate School of Medicine, University of Pennsylvania; Attending Ophthalmologist, Philadelphia General Hospital; Chief of the Laboratory of Ophthalmology, Wills Hospital, Philadelphia; Consulting Ophthalmologist, Council for the Blind and the Department of Public Assistance, Commonwealth of Pennsylvania. Cloth. Pp. 319, illustrated with 172 engravings and three colored plates. Price, $4.75. Philadelphia: Lee & Febiger, 1938.

The New International Clinics. Original Contributions: Clinics; and Evaluated Reviews of Current Advances in the Medical Arts. Edited by George Morris Piersol, M. D., Professor of Medicine, Graduate School of Medicine, University of Pennsylvania, Philadelphia, Pa. Volume III. New Series One (old forty-eighth). Cloth. Pp. 341. Philadelphia: J. B. Lippincott Company, 1938.

Anus, Rectum, Sigmoid, Colon. Diagnosis and Treatment. By Harry Ellicott Bacon, B. S., M. D., F. A. C. S., F. A. P. S., Assistant Professor of Proctology, Temple University School of Medicine; Assistant Professor of Proctology, Graduate School of Medicine, University of Pennsylvania; Visiting Proctologist, St. Luke's and Children's Hospital; Proctologist, National Stomach Hospital; Consultant Proctologist, Mercy Hospital; Assistant Surgeon, Radiologic Department, Philadelphia General Hospital; Co-Founder and Past President, Proctologic Society Graduate Hospital, University of Pennsylvania. Introduction by W. Wayne Babcock, A. M., M. D., LL. D., F. A. C. S., Professor of Surgery, Temple University School of Medicine. Foreword by J. P. Lockhart-Mummery, M. A., M. B., B. C. (Cantab), F. R. C. S. (Eng.) Emeritus Surgeon, St Mark's Hospital, London, England. Cloth. Pp. 855, with 487 illustrations in the text, mostly original, by William Brown McNett. Price, $8.50. Philadelphia: J. B. Lippincott Company, 1938.

Experience in the Management of Fractures and Dislocations. Based on an Analysis of 4,390 Cases. By The Staff of the Fracture Service, Massachusetts General Hospital, Boston. Under the General Editorship of Philip D. Wilson, M. D., Surgeon-in-Chief, Hospital for Ruptured and Crippled, New York; Clinical Professor of Orthopedic Surgery, College of Physicians and Surgeons, Columbia University; formerly Associate Chief, Fracture Service, Massachusetts General Hospital. Cloth. Pp. 1,036, with 1,419 illustrations in the text, of which 1,192 are line tracings of Roentgenograms in case reports. Price, $15. Philadelphia: J. B. Lippincott Company, 1938.

Surgical Pathology. By William Boyd, M. D., LL. D., M. R. C. P. Ed., F. R. C. P. Lond., Dipl. Psych., F. R. S. C., Professor of Pathology, University of Toronto. Fourth edition, thoroughly revised. Cloth. Pp. 886, with 476 illustrations and fifteen colored plates. Price, $10 net. Philadelphia: W. B. Saunders Company, 1938.

You Can Sleep Well. The A B C's of Restful Sleep for the Average Person. By Edmund Jacobson, M. D. Cloth. Pp. 269. Price, $2.00. New York: Whittlesey House, McGraw-Hill Book Company, Inc., 1938.

The Principles and Practice of Obstetrics. By Joseph B. DeLee, A. M., M. D., Professor of Obstetrics and Gynecology, Emeritus, University of Chicago; Consultant in Obstetrics, Chicago Lying-in Hospital and Dispensary, Consultant in Obstetrics, Cihcago Maternity Center. Seventh

(Continued on Page 15)



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Fulton: Physiology of the Nervous System . 6.00

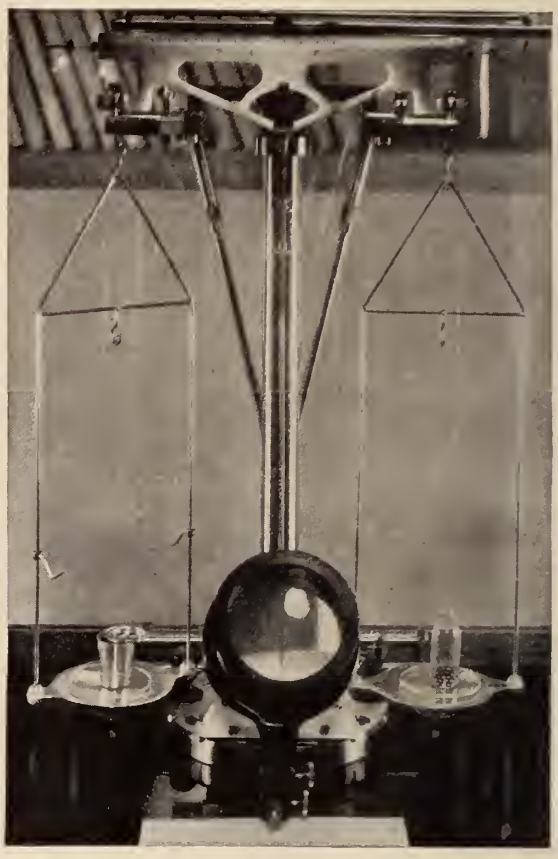
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Throughout woman's reproductive years a delicate balance is normally maintained between ovarian and other hormones.

Diminution of the ovarian function disrupts this endocrine balance, and is considered to be the cause of the vasomotor and psychic reactions characteristic of the menopause. **Theelin** and **Theelol**, crystalline estrogenic substances, supplementing or replacing the deficient ovarian function, are of proven value in controlling menopausal symptoms during the period of endocrine readjustment.

For initial relief of menopausal symptoms injection of Theelin in Oil, 2000 international units, two or three times weekly, is suggested. This may be supplemented by use of Theelol Kapseals by mouth or Theelin Suppositories (vaginal) during the intervals between injections. After the symptoms have been brought under control, dosage may be gradually reduced.

Rx THEELIN THEELOL

Theelin (ketohydroxyestratriene) and Theelol (trihydroxyestratriene) have been accepted by the Council on Pharmacy and Chemistry of the American Medical Association.

Theelin in Oil Ampoules in potencies of 1000, 2000 and 10,000 international units each, and **Theelin Ampoules** (Aqueous), 200 units, are supplied in boxes of six and fifty 1-cc. ampoules. **Theelin Vaginal Suppositories,** 2000 international units each, are supplied in boxes of six. **Theelol Kapseals** of two strengths, 0.06 milligram and 0.12 milligram, are supplied in bottles of 20, 100 and 250.

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Consulting Staff: Philip King Brown, M.D., San Francisco
Harold Guyon Trimble, M.D., Oakland
Cabot Brown, M.D., San Francisco

BOOKS RECEIVED

(Continued from Page 13)

edition, entirely reset. Cloth. Pp. 1,211, with 1,277 illustrations on 985 figures, 271 of them in colors. Price, $12 net. Philadelphia: W. B. Saunders Company, 1938.

Endocrine Therapy in General Practice. By Elmer L. Sevringhaus, M. D., F. A. C. P., Professor of Medicine, University of Wisconsin, Madison, Wisconsin; Editor, Department of Endocrinology, The Year Book of Neurology, Psychiatry and Endocrinology. Cloth. Pp. 192, with twenty-six plate pages. Price, $2.75. Chicago: Year Book Publishers, 1938.

Year-Book of Labour Statistics. Third year of issue. 1938. Paper. Pp. 267. Washington: International Labor Office, 1938.

Proceedings of the Fourth Conference on Psychiatric Education. Undergraduate Instruction. Baltimore, Maryland, April 8-10, 1936. Paper. Pp. 345. The National Committee for Mental Hygiene, Inc., New York City.

Annual Report of the Board of Regents of the Smithsonian Institution. Showing the Operations, Expenditures, and Condition of the Institution for the year ending June 30, 1937. Paper. Pp. 580. Price, $1.00. Washington: United States Government Printing Office, 1938.

Bathing "Don'ts."—There are a few "don'ts" that every swimmer should know:

Don't go in swimming for at least an hour after eating.
Don't swim alone.
Don't swim out too far; remember the return trip is just as far.
Don't dive unless you are sure of the depth of the water.
Don't stay in too long.

TWENTY-FIVE YEARS AGO

(Continued from Text Page 352)

is it said that it is a fight "to protect us all from plague," for the danger is no more to us here in California than it is to those in the country east of us. During the week ending August 16, 1913, plague-infected squirrels were found as follows: Alameda County, 2; Contra Costa County, 12. Whether the effort to eliminate entirely the ground squirrel, to destroy him and his plague utterly and completely, will ever be successful, it is hard to say. The problem is an enormous one, but the possibility of accomplishment by persistent human endeavor is also enormous; and some progress is being made. In the meantime rabies continues with us and increasingly so; during the week ending August 30 there were reported one case of feline rabies in San Francisco, eight cases of canine rabies in Oakland, and one case in Alameda. It is also learned that in the past couple of months at least a dozen Pasteur treatments were sold by a single dealer. Yet dogs and cats run at large, and one almost never sees a dog with a muzzle on! As a people, we certainly do seem to like to take big chances of getting into trouble.

From an Article on "Sclerocorneal Trephining for Glaucoma" by Dr. Kaspar Pischel, San Francisco.—Von Graefe's iridectomy had saved thousands of eyes suffering from acute glaucoma, but had not proved equally efficient in chronic and less in simple glaucoma.

De Wecker introduced the sclerotomy and coined the word "cicatrix à filtration"=filtering cicatrix.

La Grange introduced the sclerectomy—that is, the cutting out of a piece of the sclera near the corneoscleral margin. After the excision of a piece of sclera, iridectomy is usually performed.

On my visit to Germany last year, I found the La Grange operation the most favored one in the German clinics.

(Continued on Next Page)

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TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

In England I saw Spencer's sclerectomy and heard of different modifications. At the Birmingham meeting of the British Medical Association I met Colonel Elliott, who in 1909 had published his first paper about sclerocorneal trephining for glaucoma.

The aim of the operation is the creation of a subconjunctival fistula, which will permanently drain the anterior chamber under the conjunctiva and thus prevent the hardening of the eyeball. Colonel Elliott tried this operation on a very large material in Madras, India, with excellent results. In describing the operation I cannot do better than use Elliott's own words. (*The Ophthalmoscope,* August 1, 1911.) . . .

From an Article on "Use of Sera in Medical Hemorrhage" by F. F. Gundrum, M. D., Sacramento.—The term "medical hemorrhage" is used in this paper to cover a heterogeneous group of cases in which bleeding, not amenable to mechanical manipulation, may occur. These may be roughly summed up into the following groups:

1. Hemophilia.
2. Hemorrhagic diseases of new-born (of which there are several forms).
3. Purpuras (acute, chronic, simple, rheumatic, Werlhof's, Henoch's, etc.).
4. Jaundice.
5. Grave anemias.
6. Enteric affections: (*a*) Typhoid; (*b*) Dysentery.
7. Pulmonary lesions.
8. Nephritis, malaria, and other severe maladies occasionally.

It is at present impossible to classify these pathologically or physiologically on account of the insufficiency of our knowledge of the causes of this abnormality in the coagulation of the blood. In order better to approach this problem, it is advisable to review briefly the prevailing ideas regarding normal blood coagulation.

Our interest in this subject was stimulated by the occurrence at the Sacramento County Hospital of several cases in which the tendency toward bleeding was a prominent symptom. On looking over the literature there seemed a considerable diversity of opinion regarding some of the details of blood coagulation. . . .

From an Article on "Report on Four Cases of Varying Types of Anemia" by E. H. Crabtree, M. D., San Diego.—To the man of medicine, striving to attain to the greatest efficiency in the diagnosis and treatment of disease, anything that may aid his work is welcomed with ardor. In this age of specialization it is impossible for the general practitioner to reach the finesse in the use of the various apparatuses which are an aid in diagnosis, except by much careful study and application to detail. However, there are many things which the general profession often fails to grasp which should be seized with alacrity, and should be developed to the highest point of efficiency. Among these things, none, to my mind, is more important than the blood count, with special emphasis on the differential count of the white cells.

To the busy doctor, with an office full of patients each waiting his turn, it is so easy to make a "spot diagnosis," write out a prescription, collect a fee (sometimes?) and send the patient away with a few words of counsel.

In my short experience, I believe I have found nothing so frequently overlooked as the various anemias, each so typical in itself, and each responding to treatment just in proportion to the therapeutic measures directed at the specific trouble present. . . .

From an Article on "Address on the Social Evil" by Chief of Police Petersen, Oakland.—It is rather a presumption on my part to address such a learned body as

(Continued on Page 18)

Are You Sure?



In some cases you probably prescribe two to three teaspoons of cod liver oil daily as an antirachitic for infants six months of age or older. . . . But **are you sure** that the baby actually receives the cod liver oil? Do you not find that all too often the mother neglects this daily task, or the baby refuses to take the dosage?

In prescribing Special Morning Milk you are assured that when the full tall can (13 fluid ounces) is included in the twenty-four hour formula (and this usually is the case for infants six months of age and older) the baby is receiving at least 1¼ teaspoons of cod liver oil equivalent in Vitamin D. The "daily battle" of forcing cod liver oil upon the child is eliminated. Furthermore, Special Morning Milk is available at all leading retail grocers at no extra cost over other evaporated milks having a lesser amount of added vitamin D.

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TWENTY-FIVE YEARS AGO

(Continued from Page 16)

this; it is rather unexpected that one in my position could give you very much information on this question. But I take it that it is the doctors' business to save life; that is what you are for. It is also the policeman's vocation to save life in a smaller sense.

The social evil is agitating not only the people in California, but the whole civilized world, and what to do with this problem is a question of great debate. You are all familiar with the fact that the Governor signed a bill a few days ago for the abatement of houses of prostitution. This bill was widely discussed, and was advocated by the so-called reform and religious organizations. I have no fight with the reform or religious organizations, but the question is this: your average reformer speaks of the social evil from an economic or moral standpoint, and it strikes me that the question should be treated from the physiologic standpoint. . . .

From an Article on "The Undescended Testicle: Report of Two Cases" by R. L. Rigdon, M. D., San Francisco. — The testicle, in its migration from its point of origin in relation to the kidney to its ultimate destination in the scrotum, may stop short in the journey at any point along the main traveled highway, or it may wander into inviting bypaths and find lodgment in out-of-the way places and there take up its permanent abode. In the former case it is spoken of as an undescended testicle, and in the latter as a wandering testicle. With the latter variety we are not concerned at this time, but will spend a short time in considering some of the questions arising out of the former variety.

In every male the testicle must undertake this journey and its time schedule is fairly well fixed. In the vast majority it reaches its home in the scrotum by the time birth is accomplished. Sometimes it is a little delayed and does not put in its appearance for a month or two after birth. In this latter case, if examination is made, the organ can be felt in the inguinal canal or near the external ring, and its power of migration is so certain that it quickly completes its journey. . . .

From "Fraudulent Radioactive Waters." — The United States Department of Agriculture through the Bureau of Chemistry, today issued the following warning to the public in regard to the so-called radioactive mineral waters offered for sale in bottles:

"There are indications of the beginning of an attempt to perpetuate a great fraud on the American people through advertising certain mineral waters as possessing radioactivity. These waters, in some cases, are taken from springs the waters of which as they come from the ground do possess certain radioactive properties. Examination of many of these waters by the Department's specialists indicate that whatever radioactivity they possess at the spring is due almost entirely to radium emanation rather than to the presence in the water of any substance possessing radioactivity." . . .

From "School for Health Officers."—Beginning this fall Harvard University and the Massachusetts Institute of Technology are to maintain, in coöperation, a School for Public Health Officers. The facilities of both institutions are to be available to students in the School and the Certifi-



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cate of Public Health (C. P. H.) is to be signed by both President Lowell and President Maclaurin.

The object of this school is to prepare young men for public health work, especially to fit them to occupy administrative and executive positions such as health officers or members of boards of health, as well as secretaries, agents, and inspectors of health organizations. . . .

From "The San Francisco Polyclinic and the San Francisco College of Medicine Combined."—The general tendency to consolidate for more effective work has made a commencement in our city by the announcement of the union to two postgraduate schools. The San Francisco College of Medicine, while the youngest of teaching institutions, has been among the most successful. Since its incorporation in 1905 it has matriculated some three hundred students. It is from now on to continue its special courses in conjunction with the older institution in the new college building that opens its doors this month. San Francisco from its position, wealth of clinical material, and advantages of climate, should be the postgraduate center of the entire Far West. It is to be hoped that this may now be realized, and that the example of union for the common good may prove contagious and lead to further combinations among our all too numerous medical schools.

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 352)

"Mrs. Lillian Volstad and Rev. Wilbur Alvis yesterday pleaded not guilty before Superior Judge Clarence L. Kincaid to a grand jury indictment charging them with manslaughter in the death of Mrs. Volstad's son, Francis, nine, who died of a ruptured appendix. The court ordered the pair to stand trial for the boy's death next October 10. A request by Claude A. Watson, defense attorney, asking

(Continued on Next Page)



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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

that the trial be put over until after the November election, since he was nominated for the office of attorney-general on the Prohibition Party ticket, was denied. Four physicians testified before the grand jury that the boy's life might have been saved with proper medical attention. The mother and Rev. Alvis relied on the power of prayer rather than medical science to cure the boy, it is alleged, and the boy died last August 8 in General Hospital, where he was taken on a court order." (Los Angeles *Daily News,* September 3, 1938.)

"Mrs. Mary Norman, Los Angeles telephone operator, who sued Dr. William E. Balsinger, nationally known plastic surgeon, for $51,000 damages on the contention that his surgery failed to reshape her nose according to specifications, will not collect after all. Superior Judge Benjamin J. Scheinman, who had taken the case under submission, ruled in favor of Doctor Balsinger, who was represented by Attorney A. Brigham Rose." (Los Angeles *Daily News,* September 5, 1938.)

"Near the end of Depression I, Miss Thelma Crocker, San Francisco singer and dancer, pioneered a new beauty-mark for a 'prosperity ball'—a dollar sign boldly applied to her cheek. Yesterday, near the end of Depression II, the dollar sign and the cheek of Miss Thelma Crocker were again together. This time it was no beauty-mark, but Miss Crocker alleged in a suit for $50,000 damages, a mark of disfigurement. The dancer charged that Elsa Quinn, physiotherapist of 1021 Market Street, had permanently disfigured her and thereby impeded her career. In a complaint drawn by Harry Gottesfeld, local attorney, Miss Crocker set forth that she went to Miss Quinn for treatment after a pet dog, with whom she was romping, had scratched her cheek. The physiotherapist, the complaint

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weeks, charged Miss Crocker $480. Miss Crocker charged that improper sterilization of the equipment caused a permanent scar." (San Francisco *Examiner,* August 18, 1938.)

"For fifty centuries Chinese grandmothers have been giving obstreperous children liberal doses of Jeng Sen and Tang Kwai, ancient Chinese herd remedies, to cure everything from tantrums to ingrown toenails. Now comes to San Francisco Dr. K. K. Chen, distinguished Chinese research scientist, who says the cure-alls have no medicinal virtues. Doctor Chen is director of the Lilly Research Laboratories and professor of pharmacology at Indiana University. After graduating from Johns Hopkins University, he taught medicine for two years in the Pekin Union Medical College, established by the Rockefeller Foundation. While in Pekin, between 1923 and 1925, he became interested in ancient Chinese herbal remedies, and rose to prominence in the medical profession through his discovery of ephedrin, which he extracted from Ma Huang. It is now used throughout the world as a remedy for head colds, asthma and hay fever. In studying ancient remedies, however, Doctor Chen has met with many disappointments. 'Since introduction of ephedrin, I've tried over thirty Chinese herbs,' Doctor Chen said, 'and I've met with disappointment because I cannot substantiate the claims made for them in China. Still, I shall not stop searching for new remedies out of ancient drugs.'" . . . (San Francisco *Chronicle,* September 7, 1938.)

"A $100 fine imposed upon Mrs. May Turner Riach, eye specialist, after she threw papers and pencils at F. J. Kelly, attorney, who was suing her for fees, has been remitted by Municipal Judge Phil Smith. A jury, however, ruled she owed Kelly $250 for services he rendered her in collecting on a $5,000 note. The woman defendant also asserts, treated the wound four times a week for many punched Kelly when he was asking the court to cancel her fine." (San Diego *Tribune,* September 5, 1938.)

"Arrest of Mrs. Alice Hoff on suspicion of practicing surgery without a medical license launched state officers yesterday on an investigation of suspected activities of an 'illegal operation ring' in Huntington Park, it was reported by W. N. Anderson of the Department of Vocational Standards (Investigator for the Board of Medical Examiners). Mrs. Hoff pleaded not guilty to the charges at her preliminary hearing, and Justice E. H. Miller of Huntington Park set her trial for September 7. She was arrested by state officers after a seventeen-year-old girl, ward of juvenile authorities, reported she had been taken to Mrs. Hoff by a South Gate liquor dealer. Officers said the woman had been using the office of J. C. Humphrey, osteopathic physician. Humphrey is reported to have admitted Mrs. Hoff had access to the office, but denied any knowledge of her asserted illegal activities." (Los Angeles *Daily News,* August 19, 1938.)

"Mrs. Elizabeth Bray, also known as Mrs. Elizabeth Shockley, forty-four, 757 Twelfth Avenue, today pleaded not guilty to a charge of performing an illegal operation when she was arraigned in Municipal Judge Joe Shell's Court. Bail was set at $2,000. Mrs. Bray was arrested early today by Detective Ralph Whitney on a charge of performing an alleged illegal operation last July 25 on the wife of a navy man, now reported in critical condition in Mercy Hospital. Preliminary hearing for Mrs. Bray was set for September 8 at 1:45 p. m." (San Diego *Sun,* August 13, 1938.)

"Dr. George C. Jacobsen, a chiropractor with offices at 291 Geary Street, was in city prison yesterday, following his arrest by investigators for the State Medical Board on

(Continued on Next Page)

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

a charge of violating the California Medical Practice Act. The investigators allege that Jacobsen has been issuing prescriptions and attempting to treat venereal diseases." (San Francisco *Examiner*, August 30, 1938.)

"A $2,000 a year salary increase for Dr. Benjamin W. Black, Alameda County Medical Director, was voted yesterday by the Alameda County Board of Supervisors. Doctor Black, who was earning $10,000 annually, recently turned down a Cook County, Illinois, offer of $18,000 a year." (San Francisco *Chronicle*, September 9, 1938.)

"Accused of practicing medicine at a Castro Valley sanitarium, without the required state license, 'Dr.' Milton Taylor Euler of San Francisco faced arrest yesterday by state medical authorities. The complaint was filed yesterday in Justice Court here signed by Mrs. Edna G. Eaton, Registered Nurse, who operates a sanitarium and charging that 'Dr.' Euler prescribed and administered medicine to Mrs. Blanche Wade and Mrs. O'Rourke, patients. *The allegation that 'Dr.' Euler has no certificate to practice medicine in California was advanced before Deputy District Attorney Joseph Shenone by Examiner (Special Agent) Hunter of the State Board of Medical Examiners.* Conviction of the charge based on the State Business and Professions Code is punishable by a $500 maximum fine or six months maximum imprisonment." (Hayward *Journal*, August 25, 1938.)

"Wearisome and difficult cases led Dr. Hilmer Munster to his club for relaxation. The relaxation turned into too many drinks and the confused physician drove his automobile onto the Golden Gate Bridge instead of to his home at 2701 Green Street. Without sympathy, Municipal Judge Daniel S. O'Brien heard that recital yesterday from Doctor Munster, accused of drunken driving on the bridge. 'You're a potential murderer,' Judge O'Brien told the 34-year-old doctor. 'I'll take your driver's license now and keep it at least six months.' The Judge listened to State Highway Patrolman Myron Smith's report that Doctor Munster was 'slumped over the wheel and driving in an erratic manner' and ordered the physician to appear today for sentence." (San Francisco *Examiner*, September 13, 1938.)

"Cool intelligence alone is powerless. We need emotions to move us, to weld thought into an effective act, and this final activity we now see, depends upon chemical substances manufactured in our bodies. Lucky are those of us to whom inheritance has bequeathed an efficient body chemical industry."—*The Health Officer.*

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Observations.*—If you must be knocked flat, don't choose the carbuncle route. Or if, for your sins, the carbuncle chooses you, don't allow a mistaken sense of public duty to mislead you, as it did this correspondent, into neglecting it through seven strenuous days, in three cities, matching your wits against some of the keenest minds of America, under the handicap of fever, pain and infection. But if, finally, you do commit all these follies, thank your lucky stars if you then find yourself in a good hospital, like St. Luke's in Chicago, under the ministrations of a surgeon like Dr. S. W. McArthur, son and successor of an equally famous surgeon, bold enough to risk a radical operation and skilled and careful enough to do it with safety. Then, if it is also your fate to be a columnist, you may come back, as this column is now doing, to renew old contacts with multitudes of readers and friends.

* * *

Since this is in the way of a personal return and greeting, may it, for one day, be also personal and reminiscent? And the first observation is that intelligence and knowledge are not enough. Twenty years ago the writer, just before his only previous serious illness, wrote an editorial pointing out that if the time ever came when the general population did voluntarily what soldiers do compulsorily, in regard to typhoid, the typhoid rate in the civilian population would be as negligible as it was in the army. The advice was good, and the writer of it obviously had knowledge and intelligence enough. All he lacked was the fact that he was, at that moment, already coming down with typhoid, and was in bed with it before the editorial was printed. And then, as now, he had been attending to what he thought were public duties, in three different cities, after he had ceased to be able to eat.

* * *

Knowledge and intelligence we have in varying degrees. Some of us have more information and some less; some of us are quicker and some of us slower of wit. But in one thing, apparently, we are all alike. That is that the only way to acquire the common sense to act on our knowledge—of which most of us have enough, if we would use it—is to have it knocked into our thick skulls by the hard blows of experience.

* * *

There is much that is pleasant in the isolation of hospital life, provided it is not too prolonged. We are, all of us, lazy, and we delight in shirking responsibility. In a hospital, not only is everything done for you, but all decisions are made for you. You gradually lose even the sense of time, since all days are alike, and whatever happens in them is not your business anyway. You make a lot of new friends—doctors, internes, and nurses—with the always pleasant consciousness that you are the center of their attention, too. Thus, in a state of irresponsible vegetative receptivity, you not only await recovery from whatever brought you to the hospital, but you find that you have also rested away the mostly unnoticed other ills carried over from the former life of superactivity.

* * *

"The most encouraging thing I have noticed," said Dr. A. R. Elliott, distinguished internist, "is that I have not seen a single copy of the San Francisco *Chronicle* since you have been in the hospital." As, indeed, he had not, nor of any other California paper. And the first sign of returning normalcy was the day when the patient found himself reading the Chicago *Tribune*, not as a general reader, but professionally—noting on each important item of news the comments that should be written regarding it, and critically examining the way the *Tribune* handled the news, mostly, he thought, wrong. With that moment the artificial interlude of hospital irresponsibility remerged into the habits of a lifetime.

* * *

Still harping on hospitals, it is curious how this sense of irresponsibility extends even to surgery. The writer's

(Continued on Next Page)

* By Chester Rowell. From the "Observations" column in the San Francisco *Chronicle*.

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(Continued from Preceding Page)

hospital experiences, in fact, through a long lifetime of otherwise almost unbroken good health, have been nearly all surgical. There is a sense of enormous relief, pending an operation, in the realization that it is, after all, the surgeon's business, not yours. He may be under a very great strain, during a critical operation; you will be under none. Your whole part is to breathe the anesthetic and to wake up, apparently an instant later, with it all over.

* * *

In fact, it is not even "you" that is operated upon. It was you, just before, when you were wheeled into the operating room, and it will be you, an apparent instant later, when you find yourself in bed with the offending part removed, but in the interval you are a "case" to the doctor and nothing at all to yourself. So why bother? It is his business not yours. And fortunate are you if your ill is one open to the quick and complete removal of surgery, rather than to the slow processes of recovery from ordinary disease.

* * *

Excuse these hospital wanderings. But what else is there to talk about when, for weeks, one has known nothing else? Besides, this is the way of getting personally acquainted again, anyway. Tomorrow, and other tomorrows, there will once more be the great world to talk about. Considering the present state of that world, the hospital is a more cheerful subject.

Jaundice from Bismuth Compounds Used in the Therapy of Syphilis: Report of Thirty-two Cases.—In a large out-patient clinic over a period of five years, jaundice attributed to antisyphilitic treatment developed in seventy-five cases. Extensive study of the cases was not possible, but the criteria for diagnosis were lack of evidence of syphilis of the liver and of other disease of the liver or biliary system, development of the jaundice within a reasonable time after the last treatment and complete clinical recovery. For bismuth compounds the time chosen was six weeks and for arsphenamine twelve weeks. Because jaundice from bismuth had been largely unrecognized, Ruben Nomland, Iowa City; Edward A. Skolnik, Chicago, and Lawrence L. McLellan, Philadelphia (*Journal of the American Medical Association,* July 2, 1938), felt that study of the thirty-two cases that occurred in the series was most important. Their criteria for the diagnosis of bismuth jaundice were lack of previous treatment with arsphenamin, at least within the preceding three months; development of jaundice within six weeks after the last treatment with a bismuth compound; absence of other causes of jaundice, and complete clinical recovery. In six of ten patients who had had only bismuth, the jaundice developed within one week after the last treatment; in three it developed in from one to two weeks, and in one it developed in from two to three weeks. In all cases the bismuth preparation was bismuth subsalicylate given in a dose of 1.5 or 2 cubic centimeters of the 10 per cent suspension in oil at weekly intervals. Age, sex, race and season of the year did not seem to have any bearing on the incidence of the jaundice. Of the twenty-two patients who had had neoarsphenamine but whose jaundice was presumed to be caused by bismuth, seven had had their last neoarsphenamine from twelve to sixteen weeks before, three from sixteen to twenty-three weeks before, eleven from twenty-four to thirty weeks before and one over thirty weeks before. Because of the time which had elapsed since the last injection of neoarsphenamine, the authors felt that neoarsphenamine had nothing to do with the jaundice. Jaundice developed in four patients in the first week after the last treatment, in five within one to two weeks, in three within two to three weeks, in four within three to four weeks and in five within four to six weeks. In all except three the bismuth preparation used was 10 per cent suspension of bismuth subsalicylate in oil given in a dose of 1.5 cubic centimeters. Three patients received considerable amounts of bismuth potassium tartrate or bismuth sodium tartrate. The clinical picture in bismuth jaundice is in no way distinguishable from that of other forms of toxic jaundice, such as jaundice from neoarsphena-

(Continued on Page 26)

"Vitamin B is probably less adequately supplied in the average American diet than any of the known vitamins and other food factors essential to health"*
*Tisdall (1935) J. A. M. A. 105-1583

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(Continued from Page 24)

mine, mapharsen, sodium cacodylate or from other drugs. The severity of jaundice from bismuth was variable, but most of the attacks were mild or moderately severe. Of the ten persons with jaundice who had had only a bismuth compound, two had mild, five moderate and three severe jaundice. Of the twenty-two who had been given arsphenamine twelve or more weeks and a bismuth compound six weeks or less before jaundice developed, nine had mild, ten moderately severe and three severe jaundice. The incidence of bismuth jaundice over the period of five years has been one attack for 2,242 injections of bismuth compounds. The incidence of jaundice from neoarsphenamine during the same period has been one attack for each 951 injections.

Frequency of Hospitalized Births.—The hospital is replacing the home as the place of birth of American children. In 1936 about 880,000 babies in the United States, or more than 40 per cent of the total born alive, and 44 per cent of the white babies, were delivered in hospitals. Births in hospitals are becoming so frequent that future historians wishing to verify the place of birth of noted Americans will find maternity hospital records a valuable source of information. Local patriots may no longer be able to point with pride to the simple dwelling in which their famous citizen was born.

The geographic distribution of hospitalized births naturally varies in different sections of the United States. The availability and adequacy of facilities for hospital confinements are, of course, important factors determining the proportion of such births in any region. In urban areas about 72 per cent of the births in 1936 were hospitalized, whereas in rural areas the figure was only 14 per cent. It is to be noted, however, that the actual difference in the proportion of hospitalized births between urban and rural areas is less than the figures indicate, in as much as they are not corrected for residence. The number of births in urban hospitals is swelled by the common practice by women in rural areas of going to a neighboring city hospital to be confined.

Whether urban or rural areas are considered, there are wide differences in the proportion of hospital deliveries among the various states. In urban areas the highest proportion of births in hospitals is recorded for a group of Mountain and Pacific Coast states. In Nevada the percentage is 93, in both Montana and Oregon it is 91, in Idaho 89, and in Washington 88. At the bottom of the list are West Virginia, with 46 per cent of the urban births hospitalized; Kentucky with 45, New Mexico with 42, and New Hampshire with 35. These four states are the only ones which show less than one-half the white births in urban areas delivered in hospitals. In general, the states recording the highest percentage of hospitalized births in urban areas show a similar experience in rural areas.

Related to the question of place of birth is that of person in attendance at birth. In all but a small proportion of cases, both at home and in hospitals, white children are ushered into the world by a physician. In urban areas 98 per cent of white children are delivered by physicians; in rural areas 92 per cent. The fact that doctors attend such an overwhelming proportion of confinements places them in a key position in the campaign to reduce maternal and infant mortality.

But the midwife still plays an important rôle in a number of southern states. In the rural areas of New Mexico, Kentucky, and Louisiana, for example, one-quarter of the white children born in 1936 were delivered by midwives. In that year more than 82,000 white women in the United States were attended by midwives at confinement. In view of this situation it seems highly desirable that there should be adequate minimum requirements of training and of experience as prerequisites for the practice of midwifery.—*Statistical Bulletin.*

Eye Defects in School Children.—The years of school life are usually the period of greatest stress and danger for eyesight, according to Lewis H. Carris, Managing Director of the National Society for the Prevention of Blindness. "Unsuspected eye defects," says Mr. Carris, "are frequently responsible for serious personality and be-

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THE DOCTOR IS OF NECESSITY A STUDENT OF LIFE Each new patient presents a new study, a new problem. Psychology plays an important role in the course of treatment he prescribes With some patients he must be frank to a point of harshness, with others he must be gentle and coaxing. The nature of the illness and, more particularly, the nature of the patient determine his attitude. He knows from experience the value of bolstering his patient's morale. As a student of psychology he knows that few things are more depressing to a woman than the fear that she is losing her charm, that when she no longer cares how she looks the chances are she has lost touch with a vital interest in life. And because he appreciates the importance of a sensible interest in personal appearance he quite rightly encourages his patients to look their best at all times. FINE COSMETICS appeal to that interest That is why they deserve to be recommended by doctors who are, after all, greatly concerned with their patient's morale.

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havior problems among children, as well as their failures in school.

"The beginning of the new school year is a good time for children to have their eyes examined. Approximately three million school children in the United States, or 12 per cent of the entire school population, are handicapped in their education by defective eyesight.

"Fortunately most boys and girls have normal vision and may study without undue eyestrain if the proper school environment is provided. This means an adequate amount of well diffused, well directed light without glare, books in sufficiently large, clear type, desks with a dull finished surface, and so on.

"The most common visual defects among school children are farsightedness, astigmatism, nearsightedness, and cross-eyes. The last is serious from more than the visual aspect; those who suffer from cross-eyes often become extremely sensitive and self-conscious. The child with cross-eyes, no matter how young, should be placed under the care of an ophthalmologist as soon as the defect is recognized.

"Some children have such serious eye difficulties that after everything possible has been done for them they cannot see well enough to profitably use ordinary school equipment. Probably one in five hundred of the school population comes under this classification, which is known as partially seeing. They carry on their close eye work in sight-saving classes under the direction of specially trained teachers, but join their normally seeing companions in those school activities that do not require close eye work."

State Cancer Programs.—Only seven states have enacted legislation dealing with the control of cancer, a disease second to heart trouble as a cause of death, according to material collected by the late Dr. Ellis Fischel, just before his tragic death.

While most states have taken steps to insure care of the insane, the blind, and the tuberculous, only a handful have a comprehensive plan of action against cancer, a disease which destroys 150,000 men, women, and children each year. Those states which have enacted legislation dealing with this problem are Connecticut, Georgia, Illinois, Missouri, Massachusetts, New Hampshire, New York. It is interesting to note that three of these—Georgia, Illinois, and Missouri—acted for the first time in 1937.

New York entered the field in 1898 with an appropriation of $10,000 for a laboratory which was expected to solve the cancer problem quickly. Last year $510,000 was appropriated for a new hospital, and the annual cost to the New York State Institute for the Study of Malignant Disease is $250,000. The Massachusetts program was launched in 1926, and last year the cost to the state was $457,000 for the maintenance of Pondville Hospital, for tumor clinics, lay and professional education, and statistical research. Missouri in 1937 entered the field with an appropriation of $600,000, of which $400,000 is for the erection of a State Cancer Hospital, and the rest for its equipment and operation. Tumor clinics will also be developed.

New Hampshire each devotes $35,000 for diagnostic clinics and hospitalization of indigent patients. Connecticut appropriates $10,000 to maintain a uniform system of records for tumor clinics throughout the state. In Illinois, $100,000 was appropriated last spring for the organizing of a state-aided cancer clinic and the development of radium therapy. Georgia appropriated $50,000 for 1937 and a like sum for 1938 to lay the groundwork for a comprehensive program of cancer control through education, care and treatment of indigent patients, and the acquisition of essential laboratories and hospitals.

A total of approximately $2,012,000 was appropriated in 1937 by seven states for cancer clinics, education, hospitalization and research. That may seem a large sum of money, but it is little in the face of cancer, a disease which brings tragedy to 396 families in our country each day, a disease that, each time the clock strikes the hour, has destroyed sixteen lives.

However, there is evidence on many sides of a growing realization of the public's responsibility in this matter. Creation by Congress last year of the National Cancer Institute and the entrance into the field of cancer-control

(Continued on Next Page)



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(Continued from Preceding Page)

legislation by three states are straws showing which way the wind of public opinion is blowing. Already many state health departments are doing creditable educational work, independently, or in coöperation with the Women's Field Army. Additional comprehensive state programs of cancer control may be expected in the near future.—*The American Society for the Control of Cancer.*

Examiners and Grading.—In the selection of students for advanced work in college and for the professional schools, the record of previous scholastic aptitude as measured by "grades" is usually an important criterion. The proper interpretation and weight of high school and college grades have become an increasing concern of administrators in universities and professional schools. Hutchinson and Pugh [1] studied the differences in marks assigned not only by different examiners, but also by the same examiner in the same subject for the same students at different times. In other words, they examined the examiners, tabulating the marks obtained by a group of twenty-five students in a series of examinations in eight subjects over a period of a year. Grades were recorded according to the decimal system. All the grades in each subject were totaled both for class work and for individual examinations. These totals were then subjected to analysis in relation to several variables, including individual students, individual instructors and the same instructor at different times. The marking for class work was found to be distinctly more lenient than that for examinations in most of the subjects. More surprising were the variations in total marks given by an individual examiner in different tests in the same subject. The higher differential grades for the same group of students in some subjects than in others were also striking. Apparently examiners differed among themselves as much as did the students. It is, however, a simple matter to adjust the students' marks to a common basis by allotting the same total for the class in all subjects. Gross deviations from the accepted standard due to the individual instructor's liberality or strictness in grading can thus be detected and corrected by simple algebraic adjustment.

More serious, Hutchinson and Pugh believe, is the discovery that an examiner often varies widely in his standard of marking the same group in the same subject after an interval of two or three months. This source of variation is more difficult to control and should receive the attention of those who are responsible for the disposition of candidates for universities or professional schools. This variation in performance of examiners affects the choice of medical as well as other university students. It may affect also the certification of specialists.

Other known factors in student records have already received the consideration of advanced university and professional school administrators. President Conant [2] of Harvard, in a recent report to the Board of Overseers, states that there is an ever-growing interest in defining each student's aptitudes and interests. As he points out, however, a man's success or failure in a professional school has been proved to be highly correlated with his record of college work. At Harvard the previous school record is corrected for the varying scholastic standards. To such adjustment it would now seem wise to add a factor of correction for those students whose scholastic average has been affected by unjustified variation in grading by examiners. The large extent to which the selection of medical students is influenced by present procedure insures the continued vital interest of the medical profession in this subject.—*Journal of the American Medical Association,* August 27, 1938.

Learning to practice good posture is half the battle; the other half is won by doing simple exercises for a few minutes every day.

1 Hutchinson, J. B., and Pugh, B. M.: A Note on the Importance of Differences Between Examiners in the Estimation of the Ability of Students, Ann. Eugenics 8:107, (Jan.) 1938.

2 Walsh, Theodore E., and Cannon, Paul R.: J. Immunol. 31:331, (Oct.) 1936.



1. Munsell, Jrl.A.M.A., Vol. 111, P. 250, 1938.
2. Booher, Jrl.A.M.A., Vol. 110, P. 1920, 1938.

3. Holmes and Deuel: Am. Jrl. Physiol., Vol. 54, P. 479. (Recently confirmed in experiments with New Nucoa by university workers.)



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* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

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FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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Information, Statistics, Photographs Wanted for Book Concerning Industrial Eye Hazards.—The National Society for the Prevention of Blindness has issued a public call for (1) information concerning new industrial or occupational eye hazards—both accident and disease hazards, (2) recent and significant statistics concerning any occupational hazards to sight—showing frequency, severity, causes, nature of injury, degree of impairment, cost, etc., (3) photographs showing either hazards to sight or protection against such hazards and—most important of all—(4) information concerning successful methods of eliminating, counteracting or alleviating the disease and accident hazards to eyes. The Society's headquarters are at 50 west Fiftieth Street, New York City.

This information is desired for consideration in the revision of "Eye Hazards in Industrial Occupations" by Lewis H. Carris, managing director of the Society, and Louis Resnick, industrial relations consultant of the organization, which for more than ten years has been the standard handbook on the subject among safety engineers, industrial physicians and nurses, industrial executives, and all those professionally concerned with the conservation of vision among workers in all occupations.

Mr. Resnick, to whom the Society has given the task of bringing this volume up to date, is now in Europe where he will analyze the data on this subject assembled from fifty countries by the International Labor Organization and the Health Section of the League of Nations in Geneva and by the industrial safety organizations of Great Britain, France, Switzerland, and other European countries. On his return to the United States late in October, Mr. Resnick will resume his study of American experience. It is expected that the revised edition of "Eye Hazards in Industrial Occupations" will appear early in 1939.

Issuing this call for information, Mr. Carris said: "The National Society for the Prevention of Blindness is a nonprofit, noncommercial organization devoted exclusively to the interests indicated in its name. The Society's contribution to the field of industrial accident prevention and



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health promotion is in large degree determined by the extent of the coöperation it receives from the groups directly concerned, namely, the management of industry, the workers of industry, the insurance underwriters of industry, governmental agencies—federal, state, and municipal—and the public and private agencies in the fields of industrial safety and public health.

"During the past fifteen years the National Society for the Prevention of Blindness has made a substantial contribution to this field through its maintenance of a clearing house of information on industrial eye protection and its publication of two earlier editions of 'Eye Hazards in Industrial Occupations.' In both these activities it has received valuable coöperation from all other agencies concerned, including large numbers of individual corporations ready to share their experience in sight conservation with industry generally.

"The Society hopes that in the present revision of its handbook on industrial eye hazards it will again have the coöperation of all those who have had special opportunity to observe such hazards and to work effectively toward their elimination. Due credit will, of course, be given for all photographs, statistics or other information used either in the new edition of 'Eye Hazards in Industrial Occupations' or in the Society's clearing house of information on the subject."

Rudolph Matas Receives Distinguished Service Medal.—The first medal for distinguished service to scientific medicine to be awarded by the American Medical Association was given to Rudolph Matas, surgeon, of New Orleans, by the House of Delegates in the election held June 13. The recipient of this medal is chosen by a process of selection which insures choice of an outstanding physician and scientist. This year the three names submitted to the House of Delegates after selective elimination of nineteen others were those of Doctors Simon Flexner, Ludvig Hektoen and Rudolph Matas. Doctor Matas was born in Bonnet Carré, Louisiana, September 12, 1860, was educated in Barcelona, Paris, Brownsville (Texas) and New Orleans, and was graduated by the Literary Institute of St. John, Matamoros, Mexico, in 1876. He received his degree in medicine from Tulane University in 1880 and has had honorary degrees from Washington University, the University of Alabama, Tulane University, the University of Pennsylvania, Princeton and the National University of Guatemala. He began the practice of medicine in New Orleans in 1880 and has specialized in surgery since 1895, when he became professor of surgery in Tulane University. He has been emeritus professor of surgery at Tulane and consultant at Charity Hospital, New Orleans, since 1928 and honorary chief surgeon of Touro Infirmary since 1935. During the World War he was organizer and director of Base Hospital No. 24. He is a member of innumerable surgical societies throughout the world and at present is president of the Société internationale de chirurgie and honorary president of the International Surgical Congress, which will meet in Vienna next year. He has been decorated by the governments of Venezuela, Spain, France and Cuba. Doctor Matas is recognized as one of the most learned writers on surgery in the world. He is author of many treatises and monographs on surgical subjects, especially in the field of vascular surgery. By this award the American Medical Association indicates its recognition of scientific advancement as one of the main functions of organized medicine.—*Journal of the American Medical Association,* July 2, 1938.

Animated Medicine Cabinet.—A household medicine chest 20 feet high and 15 feet wide, with a mirror-door large enough to reflect three thousand faces at one time, is to be a feature exhibit in the Hall of Pharmacy at the New York World's Fair in 1939. The cabinet is, in reality, a stage, upon which marionettes 14 feet tall, manipulated by skilled puppeteers, will dramatize the familiar receptacle as the family's first line of defense against disease and infection.

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Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

DEPARTMENT INDEX

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EDITORIALS†

IMPORTANT SPECIAL SESSION OF THE A. M. A. HOUSE OF DELEGATES

An Historic Special Session of the American Medical Association House of Delegates.—For the third time in many years, the House of Delegates of the American Medical Association was called into special session at Chicago, on Friday and Saturday, the 16th and 17th of September, and elsewhere in this issue of the Official Journal‡ appear a chronicle and comments on the proceedings of the two all-day meetings, at which policies of paramount importance to future medical practice were discussed. Members of the California Medical Association are therefore urged to read these articles because—believe it or not—the principles there considered and acted upon are such that, if they or their modifications are placed in operation, it is possible the future professional and personal welfare of every physician now in active practice may be involved.

So rapid are some of the present tendencies that it is difficult—even for those members of the profession who in recent years have been making special efforts to keep themselves mentally alert and in touch with passing events—to know the place and time, where and when political changes will be initiated, and on so firm a foundation that the nature of medical practice, as it now exists and has long been understood and interpreted, will not only be imperiled, but be made to change; and that, too, no matter how unanimous physicians may be in resisting the innovations. What is hinted at, of course, is the possibility of the United States establishing a plan of health insurance under governmental influence, through plans closely akin or modeled after the German Krankenkassen or British panel systems.

* * *

Impending Dangers to Medical Practice May Be Prevented.—Fortunately, if the members of the medical profession in the United States will realize—before it is too late—the impending dangers, it is possible that the infliction of these foreign methods of medical practice may be averted. That this would be eminently desirable is readily

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

‡ See page 318.

seen when it is perceived how unsuited are such methods, even in their respective lands, to the best development of scientific medicine and its practices. In our own country, with its existing political organization, they are still more unadaptable, and would without doubt lead to deplorable results by bringing about a medical practice, surcharged with dull regimentation, mediocrity and elements yet worse. Such deleterious factors must not be permitted to debauch a profession whose altruistic and forward-visioned services have been mainly responsible for making it possible for the United States of America to give to its people rates of morbidity and mortality and life expectancies superior to the best that can be shown by any other civilized country. How natural, then, that physicians, knowing these simple and indisputable facts, should rebel at plans, under political or other sponsorship, that would do away with such unalloyed blessings! In a consideration of the recent session of the American Medical Association House of Delegates, these facts must be kept in mind.

* * *

American Medical Association Is a Federacy and Its House of Delegates Is a Representative Body.—As is, of course, widely known, the American Medical Association is the mouthpiece of organized, scientific medicine throughout the United States. It is a federacy of constituent state associations, in turn made up of component county medical societies, the basic law permitting only one constituent association for each state, and only one society or unit in each county. The county societies, in proportion to their rolls of local members, elect a certain number of representatives to make up the House of Delegates of the State Association, to which is delegated the responsibility of electing—again on the numerical basis of membership—a certain quota of representatives to become members of the House of Delegates of the American Medical Association. In this federacy, the 6,000 members of the California Medical Association are represented by seven delegates in the American Medical Association House of Delegates. At the recent special session in Chicago, the full California delegation was in attendance. The House of Delegates of the American Medical Association, therefore, there assembled was about as representative a body as could be formed. True, its members reflect the viewpoints of the states from which they come, and the fact that principles enunciated and actions taken by the American Medical Association House of Delegates do not always receive cordial and unanimous consent from all its members means nothing else than that medical practice problems may be and are quite different in the various sections of the United States. This fact, unfortunately, is not at all times kept in mind by lay theorists and propagandists who, carried away in ecstasy by paper schemes of their own groups and cults, in an unctious feeling of self-sufficiency, would impress their compulsory health systems not only upon the people at large, but upon the medical profession of these United States.

The Medical Profession, Not Theorists and Propagandists, Must Lead.—We know that we, ourselves, as medical men and women, find it difficult occasionally to solve some of the social welfare and economic problems so often intimately associated as causative factors in sickness due to bodily disease; but at least—and in spite of the fact that the educational standards of nonsectarian medicine more than measure up to the best among any of the professions, and that the first-hand knowledge and experience of physicians should give them special license to speak—we, be it said to our credit, are not egotistical enough to flaunt a universal plan before the public as a scheme that would tremendously lessen, if not actually do away with, human illness and suffering.

* * *

Obligation of Every Physician.—The thought contributory to the above comments is that every member of the profession of scientific medicine, in these present days, owes it to himself, and to the people to whom he has dedicated his life service, to keep in touch with current public welfare, political and medical trends, and so, to take an active interest, that he will promote meetings in his county medical society where these important matters may be discussed and clarified. There and then, the constituted officers of his medical organizations may be made acquainted with his own views and his unqualified willingness to give the fullest coöperation in upholding the standards of scientific medicine, to the end that adequate medical service may be given to all the people, no matter to what income groups they may belong.

To that fundamental principle the physicians of today are as firmly devoted as in the years long passed, and during which their public health and other labors have brought to our fellow countrymen so many blessings in the prevention and cure of disease.

PROPOSED "HUMANE" DOG-POUND LAW (INITIATIVE NO. 2)

Proposed Initiative a Menace to the Public Health.—California's public health interests will be directly and seriously endangered if Initiative Proposition Number 2 (Humane Dog Pound Initiative) receives the favorable vote of the State's electorate. The deplorable effects will extend farther than California, because this guinea-pig experiment by the antivivisectionist group, if it is carried through to successful conclusion in California, will no doubt be imitated in other states of the Union.

* * *

Title of the Initiative Is Misleading.—As has been stated in previous issues of California and Western Medicine, the euphonious phraseology of the proposed law, and the high-sounding appeals for its passage on the sentimental plea, "Protect Man's Best Friend, the Dog!" etc. (backed, as the efforts are, by a goodly number of newspapers, movie stars and other factors in publicity) have

already led many voters to acquire an improper understanding of the purport and scope of the proposed act.

* * *

Every California Physician Should Be Interested.—It is of the very first importance, then, that every physician in California should take an active interest in this movement and make a personal effort to do his part in bringing about the defeat of this absurdly misnamed "Humane Dog Pound" Initiative.

Animal experimentation, humanely carried on in the laboratories of the accredited medical schools of California and designed to add additional knowledge, whereby disease in both human beings and the lower animals may be prevented (or, if it is present, be overcome), must not be stifled and done away with because of the erroneous thinking and emotional outbursts of either well-meaning and misled citizens, or of highly prejudiced disciples of the antivivisectionist group.

The special danger in Initiative No. 2 has been carefully concealed in phraseology seemingly dealing only with the kindly care of dogs. Appeals without number have been made to dog lovers to use their influence for the passage of this law, supposedly to prevent their dog pets from being stolen and carried away to medical laboratories, there to be cruelly treated in dissection and similar experiments.

Of course, to physicians who have received their initial training in medical laboratories, and whose lives are dedicated to the relief of human suffering, the fallacy and viciousness of such statements is at once apparent. So also to veterinary surgeons, who practice their profession in efforts to prevent disease and suffering among these lower animals, the propaganda of antivivisectionists is likewise abhorrent.

* * *

Articles by Professor A. C. Ivy and Chester Rowell, Esq.—California and Western Medicine's policy is not to give space in its original articles department of papers previously printed, but in this number an exception is made, in order to more forcibly bring to the attention of the 6,000 members of the California Medical Association the importance of the issues involved in the Humane Dog Pound Initiative. We are, therefore, reprinting from the December, 1934, issue of our Official Journal a symposium of articles by A. C. Ivy, Ph. D., M. D., professor of physiology in Northwestern University, and by Chester Rowell, LL.D., of San Francisco, well-known editor and press columnist—and a nephew of a much-beloved and prominent California physician of twenty-five years and more ago, the late Chester Rowell of Fresno—two of but many distinguished scholars and publicists who have come out unreservedly against the so-called "Humane Dog Pound" measure.

The articles which appear on pages 256-265, therefore, are given such prominent position owing to their pertinent interest, and also their worthiness for rereading if formerly perused; and because of their applicability in a consideration of the basic issues in Initiative No. 2. Be sure to read them. You will then be better prepared to explain the viciousness of Humane Dog Pound Initiative—Proposition No. 2.

SOLICITATION OF PATIENTS FOR MEDICAL SERVICE PLANS CONTROLLED BY COUNTY MEDICAL SOCIETIES

Resolution Presented by the California Delegation.—In Chicago, on Friday, September 16, Dr. Charles A. Dukes of Oakland submitted to the American Medical Association House of Delegates, in special session convened, a resolution which is reprinted in this issue on page 320.

The preamble of the resolution called attention to the need of adequate medical care for all citizens, no matter to what income groups they may belong, and suggested that such adequate medical care could be made obtainable by certain low-income groups throughout the United States if it were possible for the component county medical societies in the forty-eight constituent state medical associations of the American Medical Association to offer medical service under plans adapted to their respective communities, and approved by their respective state associations, and by which they could solicit business, and in impersonal manner, without being accused of violation of the American Medical Association "Principles of Ethics."

* * *

Background of the Resolution.—The thought back of the resolution is this: Physicians, no less than their lay fellows, live in a practical work-a-day world. American business is conducted on certain principles, and, among such, legitimate solicitation for patronage has a place. Medical service of higher quality and greater scope for certain stipulated, low-income groups can be given by county medical nonprofit units with greater ease and efficiency than by commercial groups or corporations, organized for profit. County medical societies and their interlocking groups—as in the Alameda County plan, for example—are handicapped when they would go before a special industry to offer health insurance coverage on a prepayment basis, because the cry of solicitation and violation of ethics is at once raised. To overcome this, the resolution (printed on page 320) was drafted, and request was made therein that Section 4 of Chapter 3 of the Principles of Ethics of the American Medical Association (which Principles are not by-laws, but only rules of conduct adopted by resolution of the American Medical Association House of Delegates) be so *interpreted*, that impersonal solicitation for the above purpose be admissible, and be not construed as unprofessional.

* * *

Reaction of the Press.—The newspaper excerpts given in this issue on page 321, indicate the reaction of the lay press. Many members of the

House of Delegates expressed to members of the California delegation their sympathy for the resolution and their belief in its value and need. However, on a technical ruling that the resolution was not admissable under the call of the special session, it was agreed that its passage should not be pushed to vote.

The careful attention of members of the California Medical Association is called thereto because in its present or modified form it will, in all probability, come up for approval or rejection at the 1939 annual session of the California Medical Association. In the meantime, the purport and scope of the resolution and the thought behind it are commended to the consideration of the component county societies and their many members.

POSTGRADUATE ACTIVITIES OF THE CALIFORNIA MEDICAL ASSOCIATION

Scientific Medicine Is Constantly Advancing. Scientific medicine pauses and waits for no one. Its disciples and devotees are unceasing in their earnest quests for newer knowledge. They are intent that man must be victorious over disease where and when it may show itself. The advances made in the last half-century are little short of marvelous. The amazing progress boasted of in these latter few decades is largely responsible for the great increase in life expectancy in countries of the civilized world. Many are the discoveries given to the people of all lands by the disciples of Aesculapius, made gladly, generously, and without request for monetary or other reward. In no other group or guild does this altruistic tradition exist. It is a something, a token, of which every medical man and woman should be proud.

* * *

Physicians Must Be Alert to Changing Knowledge.—We must not, however, in our individual selves, be content to bask in the glory of fellows whose researches have made significant additions to medical knowledge of worth. Each of us must strive to keep in touch with recent advances in medical science, so that every patient may know that the professional services rendered for him have measured up to the highest and best standards.

* * *

Private Practice Is a Hard Taskmaster.—The intimate personal relationship between patient and physician in general practice has its joys and rewards, but also its disadvantages. It is often difficult, for instance, for a physician to leave his practice for a needed vacation, or for a course of study in newer methods, especially when the sought-after work necessitates an absence from home. Yet, every physician owes it to himself and to his patients to keep abreast of the knowledge which recent methods in practice may have demonstrated should be used; and it is just here that cooperation with the Committee on Postgraduate Activities of the California Medical Association may be of real value.

Postgraduate Supplement to This Issue.—Our State Association is, therefore, prepared to bring to every county unit, or group of county units or district that requests it, colleagues who are willing to give clinical and other postgraduate or refresher courses. The Postgraduate Supplement to this October issue of CALIFORNIA AND WESTERN MEDICINE presents the plans of the Standing Committee on Postgraduate Activities. Members are requested to scan carefully and to discuss the plans at their county society meetings. The Supplement aims to indicate the means whereby local groups, through correspondence with the State Association headquarters office in San Francisco, may arrange for postgraduate conferences.

The Committee hopes that the year 1938-1939 will record a generous response by members from all sections of California. Suggestions are requested: if, for example, the Supplement is lacking in any needed features, members are to feel free to write the Committee, and tender their recommendations. It should be kept in mind, however, that when clinic or other conferences have been arranged, the least that can be done, as an expression of appreciation for guest clinicians and other speakers who may have traveled considerable distances, perhaps at real inconvenience to themselves, is to insure a good attendance. It is important on that account that all members of local committees in charge of postgraduate conferences should meet their responsibilities and be active aids in making their conferences a success. Honorary or nonactive members are not needed on a local postgraduate committee.

As before stated, a plea is made for careful scanning of the Supplement and, after arrangements have been made for a Postgraduate Conference, for active and whole-hearted coöperation in carrying it through to successful conclusion.

NOVEMBER STATE ELECTION: ITS PUBLIC HEALTH IMPORTANCE

November State Election of Great Importance.—The significance of the state election to be held Tuesday, November 8, has been stressed in previous issues of this magazine.* It is not only important that every physician should vote, but that he should utilize every occasion and legitimate means to acquaint his friends and patients with his views and preferences, especially in so far as public health matters are concerned.

* * *

Proposed Humane Dog Pound Initiative (No. 2) Must Be Combated.—Efforts should be unceasingly made to combat the vicious proposed Humane Dog Pound Law, a misnomer for an endeavor that would practically do away with humane animal experimentation designed to bring to light knowledge whereby disease may be prevented or overcome. This subject is referred to elsewhere in this number of the Official Journal.†

* See CALIFORNIA AND WESTERN MEDICINE, September, 1938, on page 180.

† See pages 254; 256-265; 324; and 343-344.

Public Health Views of Legislative Candidates.—A component county medical society and its members are negligent in both their civic and medical responsibilities if they fail to learn whether their State Senator and State Assemblymen candidates who aspire to represent their particular district have sound views on public health problems. This knowledge may be obtained through individual members or through committees. Above all, however, this knowledge should be obtained and exactly. An additional and important service will be rendered if a confidential letter is sent to the State Association Secretary indicating what has been learned concerning candidates of the two major political parties. Certainly, no aspirants to legislative office should be supported by physicians when such candidates are not in harmony with public health advancement, as physicians, with their special knowledge, understand such needs.

* * *

Much Can Be Done in the Next Several Weeks.—In conclusion, in less than thirty days after this issue is placed in the mails, or on November 8, the forthcoming election will be at hand. Much is to be done in these few days, but much can be done. Much will be accomplished in public health and medical matters, of great importance to the profession and to the people of California, if each member, with every other member of the California Medical Association, will give proper and full support to measures such as are indicated above.

To each member, therefore, this question may be addressed : After the election is over, what will be the report you may render to yourself on these important matters? Keep in mind that the last half-dozen sessions of the California Legislature have been strenuous experiences for the medical profession. Your own inaction on and before November 8 may make for unpleasant and equally strenuous experiences for yourself in later years. Prevent such an unfortunate aftermath by doing your part in these October and November days of 1938. "An ounce of prevention is worth a pound of cure!"

TWO IMPORTANT DECISIONS BY THE CALIFORNIA SUPREME COURT: (1) HEALTH SERVICE PLAN OF THE MUNICIPAL EMPLOYEES OF SAN FRANCISCO; AND (2) ON LEGAL RIGHT OF A CORPORATION TO PRACTICE MEDICINE

Medico-Legal References Not Easily Found in Medical Indexes.—References to important medico-legal problems and principles are often difficult to find in medical literature, because the opinions of courts are often too briefly summarized, and at the same time are given merely secondary positions in the pages of medical publications. A double loss results from this practice in that physicians frequently fail to note such papers. Also, the articles, not being mentioned in the indexes as original contributions, are somewhat difficult to find when subsequent reference may be necessary.

* * *

Two Leading Cases.—On September 2, 1938, the Supreme Court of the State of California handed down two decisions that are apt to become leading cases in legal tomes. The full opinions, the one on the Health Service Plan of the Municipal Employees of San Francisco (six justices concurring and one dissenting), and the other, the case of the People of the State of California vs. Pacific Health Corporation, Inc., on the legal right of a corporation to practice medicine (four justices concurring and three dissenting), are printed in this issue on pages 302 and 306.*

In both cases, Attorney-General U. S. Webb, who, after many of years of service, will soon retire from practice—with Deputy Attorney-Generals Lionel Browne and Neil Cunningham, represented the people of the State of California and the State Board of Medical Examiners. In the Pacific Health Corporation case, Hartley F. Peart and Howard Hassard, of the legal counsel of the California Medical Association, appeared as "Friends of the Court."

The two decisions are of major importance, and merit careful perusal, because the opinions, as given expression by the Court in written word, indicate present-day trends in the legal interpretation of medical service and hospitalization problems. Such opinions by the higher courts, unless reversed, take on the same authority as established law.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 318.

* For excerpts giving press comments on the decisions, see pages 302 and 336.

Duration of Smallpox Immunity.—In 1936 a study was made of smallpox immunity in 1,053 matriculating college students at Kansas State College. In September, 1937, David T. Loy and M. W. Husband, Manhattan, Kan. (*Journal of the American Medical Association,* August 27, 1938), made a similar investigation of 986 students, with additional data on the duration of smallpox immunity and the effect of multiple vaccinations. In summary they state: (1) Of the students who matriculate at Kansas State College (*a*) approximately one-fourth have never been vaccinated against smallpox and (*b*) approximately two-thirds are in some degree susceptible to smallpox. (2) Only 5.9 per cent of the 1937 group had been vaccinated more than once previously. (3) There are about 20 per cent more persons with complete immunity in the previously vaccinated one to five-year group than in the group vaccinated from six to ten years previously. (4) There are about 20 per cent more persons with complete immunity in the multiple previously vaccinated group than in the once previously vaccinated group. (5) The method of noncompulsory vaccination used has proved to be almost 100 per cent acceptable to the student group.

EDITORIAL COMMENT†

THE DOCTOR'S RESPONSIBILITY REGARDING THE HUMANE POUND ACT

For many years a certain group of people has had introduced in the California Legislature each succeeding session a bill relating to animal experimentation. Lately these bills have been termed "Pound Bills." The legislators have seen the dangers in these bills and refused to pass them.

On the November ballot an initiative will appear which is called the "Humane Pound Bill." Its number is Proposition 2. This initiative is the effort of a group determined on an objective which will destroy progress through animal experimentation. These persons misguidedly strive constantly to prevent others from increasing knowledge. This cleverly worded initiative appeals to the animal lover and sympathetic spirit of the voters under the guise of protecting the homeless, stray dog and cat while it actually makes almost impossible the use of animals for medical research. Furthermore, it destroys the sanctity of the home, where two or more dogs are kept, by calling such a home a pound and giving legal entry to that home, of an officer of any private humane society. If for no other reason, every voter should vote against this initiative if he or she believes in personal liberty and the security of his own home.

Everyone knows the ease with which a log can be split after the wedge starts the process; one knows how the house can be entered if at first a foot is placed between the door and the frame. This initiative is the opening wedge to more drastic legislation that will follow its passage as surely as night follows day, not only in California, which is now the guinea pig, but subsequently in all the other states of the Union.

Many members of this Association have been appealed to for help in defeating this initiative. The responses have been enlightening. One believes our county and state society should do all the work. Another states this is an issue directly concerning the lay public and the people should be entirely responsible. Some doctors say they have done enough toward organizations. Many leaders in their communities and members of medical faculties state frankly they are not interested. If we are not interested in our own profession, in what are we interested?

In answer to appeals, many medical, special, and lay organizations, including kennel clubs, to the number of 112, have indorsed the campaign against this initiative. These are organizations distributed throughout the United States, showing thinking men and women are aware of this imminent peril. Individual scientists in the East have recently offered material aid to California.

This initiative, in the first place, directly affects the lives and health of every citizen now living or who will be born in the future. Unfortunately, the great majority of our citizens do not know or suspect the lurking danger. Every dog owner and breeder, every farmer, sheep owner, dairy man, cattle raiser, hog raiser, and horse breeder has the financial success of his business at stake. If this initiative passes he will be deprived of means to prevent disease destroying his animals. It is true the burden will fall on the general population of the state, which benefits directly by increasing knowledge, and not the medical profession, which is the only agent delegated to use the knowledge for the benefit of the sufferer.

The proponents, as has been said, have cleverly worded an act that looks so innocent several physicians have said they see nothing in the Act to cause alarm. They fail to see what the legal profession clearly notes: such as the definition of a pound, the failure to provide for accrediting research laboratories, that animals cannot be acquired lawfully for laboratories, the obvious possibilities of persecution, that Section 10 is so severe in effect it will prevent all animal experimentation. The proponents have invaded the enemy's camp and have tried to weaken opposition by a letter received by many medical men, stating "great pains were taken to protect the interests of medical research" and "the subject of vivisection is a controversial one with fanatics on both sides." Also the letter states, "Perhaps you have a four-footed companion in your home." The fact is, out of the nine thousand physicians in California, there may be more than eight thousand families. Many doctors' families have two or more dogs or cats. It is logical to estimate five thousand pets in the medical profession. They are well cared for. There can be no lack of appreciation for animal life in this group. Yet the medical mind is capable of studying this problem from a broad viewpoint. The medically educated person knows dogs are better cared for in research institutions than elsewhere. Dogs used for long experiments lead happy lives, are well fed, and die of old age.

If medicine knows the dangers hidden in the "Humane Pound Initiative," it is medicine's duty to enlighten the electorate regarding the dangers just as a doctor would quickly label a typhoid-contaminated water supply. Every physician owes it to his community actively to engage in defeating this initiative by all the means at his disposal. Now more than ever is the truth seen in the age-old adage "In union there is strength." The health and future joy of living of this fair state needs and cries for the 100 per cent help, advice, and wisdom of the medical profession. Do, gladly, everything asked of you by those who are sacrificing much in order that this "danger to public health" may be defeated.

Keep in mind Representative Pettengill's recent statement to the professions, "The time has come when we who think alike have got to vote alike."

384 Post Street.

ELBRIDGE J. BEST,
San Francisco.

†This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

EXTRAPLEURAL PNEUMOTHORAX

Extrapleural pneumothorax is one of the most recent and most promising additions to the therapeutic armamentarium of the phthisiologist. In instances where the pleural space has been wholly or partially obliterated by fibrous adhesions, a new extrapleural space may be formed by the manual separation of the parietal pleura from the overlying tissues of the thoracic cage. Such a space, filled with wax in plombage, or with soft tissues in the Semb apicolytic modification of thoracoplasty, may be kept open by the repeated introduction of air, resulting in the maintenance of an artificial extrapleural pneumothorax.

In 1936 Graf reported thirty-four cases operated within the previous two years by the utilization of this principle. Shortly thereafter Schmidt of Heidelberg reported an even larger series, using a closed technique. A recent publication by Rhodes reports that more than three hundred cases have been so treated by these pioneers, in addition to other cases operated in France, Belgium, Italy, and England. Although no American reports have so far been published, it is known that the operation is already being performed in several places in this country. No difficulty was encountered in securing a satisfactory collapse of the diseased lung in all of the first dozen extrapleural pneumothoraces established at the Olive View Sanatorium before March 1, 1938.* Complications, such as subcutaneous emphysema or bleeding into the extrapleural space, have been slight and transient. The immediate results have been highly encouraging, although the ultimate course is as yet unknown.

The technique used is as follows: An incision, 7 to 10 inches long, is made between the scapula and the spine, under local anesthesia. A short posterior segment of the third or fourth rib is resected, the parietal pleura is identified and gently separated from the endothoracic fascia with the fingertips and a blunt instrument, to the level of the third rib anteriorly and the sixth or seventh posteriorly. The space is then filled with salt solution, and the wound is closed tightly. At the end of forty-eight hours, saline and serum, if present, are aspirated and replaced with air. Later, insufflations are given under fluoroscopic and x-ray control. The technique is similar to that for intrapleural pneumothorax, except that the air is injected under positive pressures as high as from 30 to 50 centimeters of water.

This procedure appears to be indicated especially in cases where intrapleural pneumothorax has been attempted, but found impossible or unsatisfactory because of the presence of adhesions not amenable to pneumonolysis. Because of its selective compression over the upper lobes alone, it may prove preferable, in many instances, to phrenic paralysis or pneumoperitoneum where these are now recommended. In patients in whom thoracoplasty is contraindicated because of age, low cardiac or respiratory reserve, or other poor condition, or because the lesions are bilateral or the patient refuses such an extensive mutilation as may be otherwise required, the absence of shock, conservation of residual lung function, and physiological similarity to the well-established intrapleural procedure make extrapleural pneumothorax particularly desirable.

* TABLE 1.—*Summary of the First Twelve Cases of Extrapleural Pneumothorax at Olive View*

	Number
Sex:	
Male	7
Female	5
Age:	
Under 20	1
20-30	5
30-40	6
Complications:	
Lues	2
Tuberculous tracheobronchitis	2
Contralateral	2
Side:	
Left	8
Right	4
Location:	
Apex	10
Midlung	2
Size cavities:	
Under 3 centimeters	5
3-4 centimeters	5
4 centimeters	2
Interval since operation:	
5 months	1
4 months	1
1 month	5
Less than 1 month	5
Maximum fill:	
Under 200 cubic centimeters	7
Over 200 cubic centimeters	5
Vital capacity diminution:	
Average 600 cubic centimeters.	
Sedimentation rate:	
Slower	2
Faster	5
Untested	5
Sputum:	
Conversion	8
Unchanged	2
Untested	2
Ancillary treatments:	
Phrenics	9
8 homolateral, 1 contralateral.	
Pneumoperitoneum	3

JOHN C. JONES,
Los Angeles.

JANE SKILLEN,
Olive View.

FRANK S. DOLLEY,
Los Angeles.

PRAUSNITZ-KÜSTNER REACTION IN RHESUS MONKEYS

In 1921 Prausnitz and Küstner,[1] of the University of Breslau, discovered the possibility of a local serum transfer of clinical allergy to normal human skin. They, however, were unable to effect a similar transfer to rabbits or guinea pigs. Seven years later Dr. Ella F. Grove[2] of Cornell University concluded that such transfer was also impossible in chimpanzees. By a slightly different technique, however, Dr. A. H. W. Caulfield[3] of the Connaught

[1] Prausnitz, C., and Küstner, H.: Centralbl. f. Bakt., 86:160, 1921.

[2] Grove, E. F.: J. Immunol., 15:3, 1928.

[3] Caulfield, A. H. W., Brown, M. H., and Waters, E. T.: Proc. Soc. Exper. Biol. and Med., 35:109, 1936.

Laboratories, University of Toronto, and more recently Dr. Henry W. Straus[4] of the Jewish Hospital, Brooklyn, New York, have reported successful transfer to rhesus monkeys. To effect this transfer, it was necessary to inject relatively large doses of undiluted human asthma serum into the most superficial layers of monkey skin, and to test the resulting sensitized areas with relatively large doses of specific protein. The protein test could be made either intracutaneously or by the intravenous route.

They emphasize the fact that in monkeys the nature and appearance of the local allergic skin reaction differs from the classical description of the Prausnitz-Küstner phenomenon in man. The first evidence of a positive reaction in monkeys is a sudden erection of local hair follicles, producing an irregular area of "goose skin" 1 to 2 inches in diameter. Wheal formation then follows, resulting in an ivory-white, flat, more or less elevated patch of induration with a sharply defined, but serrated border. As the wheal increases in size, it sends out pseudopods of varying size. Maximum wheal formation is usually observed within thirty minutes, followed by slow and gradual fading of the edema. In most monkeys the edema completely disappears within six hours. Erythema and pruritus, the dominant features of the Prausnitz-Küstner reaction in man, is rarely observed in monkeys. The thirty-minute wheal is readily recorded by photographic methods.

The successful transfer of specific protein sensitivity to the skin of monkeys is a valuable addition to current research technique. Its possible application to basic physiological research is well illustrated by its current use in a study of protein absorption from the gastro-intestinal tract of monkeys. Straus and Walzer[5] selected the serums of two patients highly allergic to peanuts and cottonseed. Five monkeys were sensitized locally by the intracutaneous injection of 0.05 cubic centimeter of these serums. Two to four days later they were given homologous protein meals by means of a nasal catheter. Within from five to twelve minutes after this gavage, specific "goose skin" reactions were noted on the local skin areas. Wheal formation soon followed and persisted for about four hours.

The only way to account for this observation with our present knowledge of immunochemistry is to picture gastrointestinal absorption of undigested food proteins as a normal physiological process. Whether or not this absorption takes place through the gastric mucosa or only after passage of food proteins to the duodenum has not yet been determined.

Box 51.

W. H. Manwaring,
Stanford University.

4 Straus, H. W.: J. Immunol., 32:251, 1937.
5 Straus, H. W., and Walzer, M.: J. Allergy, 9:121 (Jan.), 1938.

"It is a fact that some counties in the United States are too sparsely settled or too poor to support a dentist. One solution for the dental problem in these areas, is to take the dental service to them. Unless the dental and public health professions can devise some means of attracting dentists to the smaller communities, well able to support them, dentistry may have to be taken to these people also."—*The Health Officer.*

ORIGINAL ARTICLES

CALIFORNIA HUMANE DOG-POUND LAW

AN ANTIVIVISECTION MEASURE UNDER A NEW NAME

Foreword.—California's state election ballot of November 8, 1938, among proposed laws to be enacted by initiative vote of the electorate, will list, as Proposition No. 2, a measure that has been widely publicized in the press of the State, as the "Humane Dog-Pound Law." To secure for it a place on the ballot, it was necessary to procure for this proposed legislation the valid signatures of 186,387 citizens, with their proper precinct allocations. Among the militant forces behind the proposed law are individuals and groups who, in the past, have been closely identified with anti-vivisectionist endeavors. The sources of funds, for use in publicity and propaganda for the measure, we do not know.

In California, the gage of battle thrown down by the proponents of the Humane Dog-Pound Law—Initiative Proposition No. 2—has been taken up by the California Society for the Promotion of Medical Research.†

In former years at recurring sessions of the California Legislature, it has been necessary for the friends of public health to use their best efforts to overcome proposed legislation of an anti-vivisectionist type, and especially so in the legislature of the year 1935. At that time, in California and Western Medicine (issues of October, 1934, on page 247 and of November, 1934, on page 325), appeared two articles contributed by A. C. Ivy, Ph.D., M.D., professor of medicine at Northwestern University, in which the topics, "Some Contributions by Animals to Human Health" and "Seven Wonders of Medical Science—Modern Miracles" were presented in an illuminating and convincing manner. Later in December, 1934, these articles, with one by Chester Rowell, LL.D., that had appeared in the San Francisco *Chronicle* of March 9, 1933, were brought off the press in the form of a special reprint.

The fundamental truths so clearly expressed by Doctor Ivy and Mr. Rowell in the articles referred to above are as sound and as applicable today as they were four years ago.

California and Western Medicine therefore gives them their present position in this October issue to again bring to the attention of the readers of the Official Journal, the significance and implications of the Humane Dog-Pound Law, which will have a place on the November 8, 1938, state election ballot as Proposition No. 2.*

† Offices of the California Society for the Promotion of Medical Research are located at 309 Pine Street, San Francisco (telephone SUtter 8118).

* See also articles in this issue, as follows: pages 252; 254; 257-265; 324; and 343-344.

SOME CONTRIBUTIONS BY ANIMALS TO HUMAN HEALTH*

By A. C. Ivy, Ph.D., M.D.
Chicago, Illinois

INTRODUCTION

THE most universal curse on all living things is disease. Yet, how many people truly realize what biological science has done to eradicate disease from plants, animals and man. Very few, indeed. Why? Because our school histories record the story of wars, political events, and discoveries pertaining to improvements in methods of communication and transportation and say nothing, or little, of the ravages of pestilence and epidemic disease which has so frequently stricken mankind with horror and has ruthlessly destroyed the lives of hundreds of thousands of people.

In 1911 the average span of life was approximately fifty-three years. Today it is sixty years. This means that there are thirteen million people alive in the United States today who would otherwise be dead if the average life span of even the year 1911 still held in 1934.

Most of the medical science that we know today has been discovered within the past one hundred years. The average span of life one hundred years ago was thirty-five years. This means that if the average span of life had not increased to its present mark, fifty million people living in the United States today would be dead; almost one-half of the population.

If the increase of the average span of life, which affects the pocket book of every person who has an insurance policy and pays taxes, has not been due to medical science, to what has it been due? A frequent reply is "sanitation." The person who usually makes such a reply is ignorant of the fact that sanitation is the product of medical science and is universally directed and supervised by medical scientists. They forget that the Panama Canal could not be built until after the cause of yellow fever was discovered. They forget that chlorination of city water supplies could not be practiced until it was discovered that chlorination would kill typhoid germs and that typhoid was due to a specific germ. They forget that plague could not be effectively stopped until it was found that it was due to a germ and that the flea, rat and ground squirrel may carry the germ. They forget that when crops are threatened with disease, when animals are dying of unknown cause, and communities are stricken with the horror of epidemic disease, the legislators and citizens look immediately to biological and medical scientists for aid and relief.

It is sad, but nevertheless true, that sixty persons die every hour in the United States—we believe the most enlightened and humanitarian country in the world—of a preventable disease, such as smallpox, diphtheria, typhoid, plague, etc. This is not due to the lack of information on the part of medical science, but it is due either to the prejudice, ignorance or negligence of the public and law makers. This is plain language, but history reveals that it takes plain language to cause people to appreciate the truth. To be tactful is wise; to mince words is to manifest a lack of courage and to subvert the truth.

How is medical progress and science effected? It is effected in a combination of three ways. One is the discovery of a disease, its identification and natural history. Another is the application of physiology, its principles of function and how function is affected by disease. And, the third is experimental work on patients. The humane use of animals is absolutely necessary. Animal experimentation is the outstanding method of medical science. In biology living things must be used; in physics and chemistry inanimate things are used. *Animal experimentation* is not only humane, but is a manifestation of the highest type of humanity in that it *prevents unnecessary and random experimentation on man.*

Since one of the aims of the Century of Progress was to educate and lead people to appreciate the good that man has derived from the scientific advancement of the past one hundred years, the medical scientists of Northwestern University thought it was fitting that some of the contributions made by the helpers of man—the lower animals—to human and animal welfare alike, should be exhibited. A modest, inexpensive exhibit was all that could be afforded. In spite of the fact that the subject could only be exhibited very incompletely and without drama and a loud noise, the exhibit has attracted much attention and has been of definite educational value.

At the request of the editor of California and Western Medicine, the following outline of the exhibit is submitted:*

I

CONTRIBUTION OF ANIMALS TO HUMAN HEALTH

Mouse and Rat

CANCER

Heredity is an important factor in cancer of mice. It is not known to be so important in humans. "Tar cancer" can be induced in mice by the application of coal tar. Transplantation of cancer from mouse to mouse reveals the danger of handling cancers roughly. These little animals may help solve the riddle of cancer.

PNEUMONIA

Pneumonia is caused by the predominance in the lungs of one of several types of pneumococcus organisms. The mouse is used to diagnose the type, to determine the special kind of serum for treatment, and to standardize these serums which aid the patient to recover.

VITAMINS

Rats, because of their size and response, are ideal subjects for the study of these essential factors.

Vitamin A — *Growth-Promoting*

Vitamin A is found most abundantly in butter, milk, egg-yolk, tomato, carrot, cod and haliver oils. Its absence from the diet causes failure of growth, disturbances of vision, keratinization of epithelial membranes, lowered resistance to infection, even sterility.

* Editor's Note: This article presents the explanatory legends used in one of the exhibits of Northwestern University at the Century of Progress Fair at Chicago, to which editorial reference as made in the October, 1934, issue. California and Western Medicine is indebted to the courtesy of Professor Ivy not only for these legends, (to secure which it was necessary for him to send an assistant to the Fair Grounds to make a copy), but also for the introductory comments which are here printed. [Oct., 1934.]

* Editor's Note.—On the walls of the exhibit booth, to the left of these explanatory legends, were grouped specimens, sections, and photographs, designed to clarify the statements made in the text of the legends.

Vitamin B *Beriberi*

Vitamin B is found most abundantly in whole cereal grains, yeast, egg-yolk, and green vegetables. Its absence from the diet causes beriberi, nervous disturbances, poor lactation, decreased appetite, and loss of tone of the gastro-intestinal tract.

Vitamin C *Scurvy*

Vitamin C is found most abundantly in oranges, limes, lemons, tomato juice, cabbage, and most fresh vegetables. Its absence from the diet causes scurvy and diseases of the gums and teeth. (The guinea pig is used in vitamin C experiments.)

Vitamin D *Rickets*

Vitamin D is found most abundantly in oranges, cod- and tuna-liver oils, and is also produced by the exposure of ergosterol to ultra-violet. The body, upon exposure to sunlight, is able to produce this factor. Its absence from the diet results in faulty dentition and poor bone formation.

Vitamin E *Fertility*

Vitamin E is found most abundantly in wheat germ, lettuce, and watercress. Its absence from the diet of the rat causes a failure of reproduction (sterility.)

Vitamin G *Pellagra*

Vitamin G is found most abundantly in yeast, glandular organs used for food (liver and kidney), fresh leafy vegetables, bananas, and tomatoes. Its absence from the diet results in skin eruptions, gastro-intestinal and nervous symptoms (pellagra). The distribution of yeast by the Red Cross to the people in the depression stricken areas of the South has almost eradicated this "depression disease."

Guinea Pig

DIPHTHERIA AND TETANUS

Antitoxins have reduced the death rate from diphtheria and tetanus. The potency of each lot of antitoxin can only be determined by testing its power to protect guinea pigs against a fatal dose of diphtheria or tetanus toxin.

TUBERCULOSIS

Tuberculosis of the kidney can be detected in its early stages only by injecting sediment from the patient's urine into a guinea pig and noting certain diagnostic signs.

This is a most delicate and valuable test.

DIPHTHERIA

Guinea pigs are used:

To test toxin for use in the Schick test to determine susceptibility to diphtheria.

To test toxoid for preventive immunization against diphtheria.

To test the virulence of the germ in cases of diphtheria carriers.

SYPHILIS

The guinea pig furnishes the "complement" for the Wassermann or blood test for syphilis.

This test is of great value in diagnosing and controlling treatment of the disease.

GLANDERS

Glanders in man and in the horse is almost invariably fatal.

The guinea pig is a valuable aid in diagnosing and, therefore, in preventing this disease.

INFECTIOUS JAUNDICE

Infectious jaundice (Weil's disease) can be readily diagnosed by injecting the patient's blood or urine into a guinea pig.

HYDROPHOBIA

Injection of an emulsion of the brain of a dog suspected of having rabies into the brain of a guinea pig will establish the diagnosis in doubtful cases; effective treatment may then be instigated.

Dog

ETHYLENE ANESTHESIA

In searching for a less upsetting anesthetic than ether, the superior properties of ethylene gas were discovered. This and many pain-killing and sleep-producing drugs used in medicine have been discovered by using the dog as an experimental animal.

HOOKWORM INFECTION

The parasite called "hookworm" infects the intestines of man and dog.

Experiments to relieve the dog of this destructive parasite led to the discovery of drugs which eliminate the worm from man and dog without harm to the host.

SURGICAL ADVANCEMENT

Many new and difficult operations have been first tried and perfected upon an anesthetized dog. Much of the pioneer knowledge of delicate brain, nerve, lung, heart, stomach, and blood-vessel operations we owe to the assistance of these canine helpers.

INSULIN FOR DIABETICS

The experimental removal of a dog's pancreas caused sugar to appear in the urine.

The "laboratory" diabetes thus produced resulted in the discovery of insulin, which is an extract of beef pancreas. Two million in the United States will benefit from this discovery.

ADDISON'S DISEASE

When the tiny adrenal glands of a healthy dog were removed the dog died with symptoms like those of a man afflicted with the always fatal Addison's disease. An extract from these same glands yielded "cortin," which today relieves the sufferers of this formerly fatal disease.

STOMACH

Gastric Ulcer *Digestion*

This photograph* is of Ajax, a dog living happy and well, ten years after the removal of his stomach. The information thus gained has been applicable to patients suffering from stomach diseases such as ulcer, indigestion, and pernicious anemia.

LIVER

Anemia Prevented *and* *Relieved*

Feeding liver to dogs with anemia (pale, thin blood) caused red blood corpuscles to be abundantly formed. This discovery has made possible the control of pernicious anemia in man by using fresh liver or concentrated liver extract.

GALL-BLADDER

Gall-Bladder Colic *and* *Stones*

It was found that certain substances could be administered to a dog that were secreted in the bile, which made an x-ray of the gall-bladder possible. Applying this fact to man, the gall-bladder can be seen to fill and empty, thus detecting disease and stones.

PARATHYROID

Nervousness *and* *Convulsions*

When a dog's parathyroid gland is removed a nervous excitable state with convulsions, and even death, results, due to the inability of the body to use its lime or calcium. Extracts from this gland now save the lives of many patients.

RICKETS

Bone Deformity *Growth-Stunting*

Rickets was formerly a common disease.† Now, due to experiments upon puppies, it is possible to prevent deformities through dietary management.

Rabbit

Syphilis *Wasserman or "Blood Test"*

From the rabbit is obtained one essential ingredient of the test—the "amboceptor." This is often the only means of diagnosing this disease.

Pregnancy *Modified Aschheim-Zondek Test*

The rabbit is used in this very reliable test for pregnancy in its earliest stages and for the differential diagnosis of a special type of tumor (chorio-epithelioma).

Diabetes *Assay of Insulin for Treatment*

Overdoses of insulin cause convulsions, unconsciousness, and even death. The potency of each lot of insulin must be tested on rabbits before it is given to human patients.

* Reference is to the photograph of the dog named Ajax, placed to the left of the legend.

† This legend referred to accompanying photographs of puppies.

Hydrophobia *Anti-Rabic Virus for Its Prevention*

This efficient prophylactic against this terrible and always fatal disease is the injection of ground-up, dried spinal cord or brain of a rabbit dead of rabies.

Cancer *Its Experimental Production*

Two Japanese scientists discovered that painting a rabbit's ear with tar produced cancer. Much of our modern knowledge of cancer has resulted from this discovery.

Anemia *Diseases of the Blood-Forming Organs*

The red cells and leukocytes of the blood are formed in the bone marrow, which can be studied very conveniently in rabbits. Much has been learned from this source.

Horse

Antiserums

Horses produce the antiserums used successfully in the treatment or prevention of diphtheria, tetanus (lockjaw), epidemic meningitis, snake bite, botulism, pneumonia, and of scarlet fever.

Cow

Smallpox *Vaccine*

This vial contains the lymph from cowpox pustules produced by inoculating the shaved and scarified skin of healthy calves with cowpox virus. Vaccination, discovered by Doctor Jenner in 1798, has reduced smallpox from the terrible pestilence of the eighteenth century to its present rare occurrence in the twentieth century.

ENDOCRINE PRODUCTS

From cattle slaughtered for meat are obtained most of the gland extracts used in the treatment of endocrine deficiencies, such as thyroxin for cretinism and myxedema, parathorome for tetany; and insulin for diabetes.

PERNICIOUS ANEMIA

Extracts of the liver of cattle and of other animals furnish a specific treatment for this disease so uniformly fatal before this method was discovered by experiments on dogs.

Monkey

By the use of the monkey much has been learned concerning the virus diseases which are not transmissible to other laboratory animals. Among these are especially:

INFANTILE PARALYSIS

From the monkey it has been learned that this disease is infectious, that the virus passes from the nose to the central nervous system; that a protective substance is present in the blood serum of many normal adults and can be used in the treatment of the disease.

YELLOW FEVER

By using the monkey a practical method of protective immunization of humans against this disease has been discovered. Had this been known five years ago the lives of Doctor Noguchi and other martyrs to this disease would have been saved.

II

DISEASES TRANSMITTED FROM ANIMALS TO MAN

Cattle

Undulant fever—Called "infectious abortion." Transmitted to man by milk.

Tuberculosis—Transmitted by milk from tuberculous cows, especially to children.

Septic sore throat—An acute disease acquired from contaminated milk.

Anthrax—Acquired by man from handling the hides of cattle dead of anthrax.

Actinomycosis—Called "lumpy jaw" in cattle. A chronic and usually fatal disease in man.

Tapeworm—Taenia saginata is acquired by eating uncooked infested beef.

Cowpox—A mild disease in man that protects him from smallpox. Observation of this fact led Jenner to the discovery of vaccination.

Swine

Trichinosis—A very painful and often fatal disease acquired by eating uncooked or poorly cooked "measley" pork or sausage.

Tapeworm—The tapeworm, Taenia solium, is transmitted to man by infested uncooked pork or sausage.

Roundworm—This intestinal parasite may be acquired by man from the pig.

Parathyroid fever, undulant fever, anthrax, and *tuberculosis* may be transmitted to man from swine.

Goat

Undulant fever—Also called "Malta fever." It is acquired from the milk of infected goats.

Sheep

Anthrax—Sheep are the most common source of this fatal disease which occurs in man in three forms: "wool-sorter's disease," intestinal anthrax, and malignant pustule. Other diseases acquired from sheep are: *Foot and mouth disease and liver flukes.*

Mouse

Bubonic plague, tularemia, amebic dysentery, trichina, are spread to man by the mouse.

Rabbit

Tularemia—The rabbit is the chief source of infection in this very severe disease.

Fish

Tapeworm—The "fish tapeworm," Diphyllobothrium latum, is acquired from eating uncooked infested freshwater fish. Its presence in man causes a severe anemia.

Parrot

Psittacosis—A severe and often fatal disease transmitted to man.

Dog

Echinococcus disease—Taenia echinococcus, a small tapeworm which sometimes inhabits the intestine of dogs, gives rise in man to cysts that may be the cause of death.

Hydrophobia—The dog is the animal chiefly responsible for the perpetuation of this disease, so fatal to both man and dog.

Tapeworm—A tapeworm, Diphyllidium caninum, may be acquired by man (especially children) from the dog.

Mange—Of the three types of mange from which dogs suffer, one is transmissible to man.

Ringworm—The dog is subject to four types of ringworm which it may occasionally transmit to man.

Scarlet fever—Dogs are susceptible to the scarlet fever germ. Close association of a dog with a child suffering from this disease may endanger other children.

Cat

Hydrophobia—The cat may transmit this disease to man; however, it is not so great a menace as is the dog.

Poliomyelitis (infantile paralysis)—Cases of apparent transmission of this disease to man are on record.

Rat-bite fever—The cat may carry the germ of this disease.

Giardia—An intestinal protozoön which may be acquired by man from the cat.

Rat

Entameba histolytica—The microörganism of amebic dysentery may be harbored by the rat and transmitted to man.

Trichinosis—The rat is the chief source of infection of swine and, therefore, responsible for the perpetuation of the disease.

Bubonic plague—The rat is the chief means of the spread of this terrible disease, especially in cities.

Rat-bite fever—A chronic, disabling disease acquired from a rat bite.

Tularemia and *tapeworm*—Diseases occasionally transmitted from rats to man.

Horse

Glanders—This is the most serious and frequent disease transmitted from the horse to man. It is fatal to both.

Actinomycosis, foot and mouth diseases, hydrophobia, are diseases occasionally acquired by man from the horse.

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SEVEN WONDERS OF MEDICAL SCIENCE—MODERN MIRACLES*

By A. C. Ivy, Ph.D., M.D.
Chicago, Illinois

JUST as nature forces animals and plants to adapt themselves to their environment in order to survive, nature impels man to invent and discover the ways and means for exercising a greater control over his environment in order that his life may be easier and more complete.

The ant and the bee labor and save and have a highly organized society, but they do not progress appreciably. It is man's ability to improve his workmanship, his ability to discover and invent, that makes it possible for him to progress. In order to invent and discover, man must use either the uncertain empirical method which is based chiefly on guessing and faith, or the more certain scientific or experimental method which is based on the discovery of the laws of nature, their analysis and practical application.

It is through the use of the scientific method of controlled experimentation, which yields a knowledge of the fundamental principles of nature, that man during the past two centuries has achieved such a remarkable understanding and relative control over his environment. It is through animal experimentation to a large extent that man has achieved his present success in the battle against disease—a battle which, of course, is still under way. Only through a perusal of history may one gain an appreciation of *the horrors of disease* from which present-day civilization has been more or less freed through the application of the discoveries of medical science.

SEVEN WONDERS OF MEDICAL SCIENCE

Seven wonders of medical science may be described briefly as follows:

1. *Anesthesia and analgesia,* which gives us relief from pain and have liberated us from the pain of operations without anesthetics.

2. *The germ causation of infectious diseases,* which has made possible the obliteration of the horrors due to cholera, plague, yellow fever, childbirth fever, typhoid, etc., from intelligent and well-governed communities.

3. Our present knowledge of *immunity and body resistance to disease,* which would eradicate smallpox and diphtheria from the face of the earth if put into universal practice. This also includes our knowledge of specific "antisera" against lockjaw, diphtheria, scarlet fever, rabies, specific meningitis, etc.

4. *Antisepsis and asepsis,* a knowledge of which makes possible the prevention of wound infection and blood poisoning, and operations on all diseased organs.

5. *Knowledge of symptoms, which is based on a knowledge of physiology.* Symptoms result when the physiology of an organ is disturbed, and only when the functions of organs are known can disease of an organ be accurately determined. The use of x-rays helps tremendously.

6. *Organotherapy, which is based on a knowledge of physiology.* For examples, we may cite the use of *insulin* in diabetes, *thyroid extract* in certain children showing undergrowth and poor mental development, *liver extract* in *pernicious anemia,* etc.

7. *Animal nutrition and vitamins,* as related to growth and the prevention of such diseases as rickets, scurvy, polyneuritis, pellagra, etc.

Our knowledge of nutrition and the vitamins has also rendered it possible to increase our food supply, to prevent certain chronic diseases and malnutrition in children, and in times of war and economic depression to balance diets so that "war edema" and other evidences of malnutrition may be prevented.

We should add to this list the growing appreciation among the medical profession and laity of the necessity and importance of periodic health examination to discover in the individual the early signs of impending chronic diseases—for example, the discovery of *cancer* in its early stages when a *cure is possible.*

It should be realized that cancer is one of the most fundamental and difficult problems that confront biologic science. It involves the question of growth, because all cancerous tissue possesses the common habit of disorderly growth. Such fundamental questions cannot be answered in a brief period of time, and can only be answered by long-continued and intensive study. But the fight is on and much progress has been made. Cancers have been transplanted from one animal to another of the same family. They have been produced experimentally through chronic irritation. Some cancers have a distinct hereditary tendency. It is by such knowledge, gained through animal experimentation, that the war on cancer, which kills more than one hundred thousand persons yearly in the United States, will be won.

DISCOVERIES RESULTING SOLELY OR CHIEFLY FROM EXPERIMENTS ON DOGS

1. *Insulin,* which controls *diabetes* in man and dog. There are one million people living in the United States today who now have or later will develop diabetes, and who will have their *lives prolonged and enriched* by the use of insulin. This discovery was made solely on dogs.

2. *Liver extract for pernicious anemia.* Liver extract causes the blood to *return to normal* in patients afflicted with this disease. Liver was found to be a good food for anemic dogs. This was applied to patients with miraculous results.

3. *Treatment of parathyroid tetany.* Prior to 1925 practically all patients afflicted with this dreadful disease died. *Today no patient need die of this disease.*

4. *Ethylene anesthesia.* The discovery of many and our knowledge of the action of all anesthetics and sleep-producing drugs have come chiefly from experiments on dogs.

* Editor's Note: This is an abstract of an unprinted lecture by Dr. A. C. Ivy, professor of physiology and pharmacology, Northwestern University, Chicago, Illinois. California and Western Medicine is indebted to Professor Ivy for his permission to print this excellent defense of animal experimentation. [Footnote printed in 1934.]

5. *Ether,* which has been called the "greatest gift of medicine to mankind," was first tried out by Dr. W. T. G. Morton in a series of experiments on his own dog. His success in the dog led to a trial in man.

6. *Rabies treatment.* The use of the Pasteur treatment for rabies (mad-dog bite) has reduced the mortality from 16 per cent to less than 1 per cent. There is a *preventive treatment for dogs* which protects them to a great extent against this disease.

7. *Hookworm cure.* The hookworm infests both man and dog. *One hundred million persons* in our own and in tropical countries are infested with this parasite. Most all we know about this parasite resulted from studies on the dog. Carbon tetrachlorid was found to rid the body of hookworm. Then, tetrachlorethylene was found to be as effective but less toxic to the patients. More than fifteen million treatments have been given to dogs and human beings.

8. *Treatment of Addison's disease.* Addison's disease is caused by disease of the adrenal glands. *These patients die slowly.* Recently it has been discovered by experiments on dogs and cats that *this disease can be controlled* by the administration of appropriate *extracts of the adrenal glands.*

9. *Contributions to chemical warfare service:*

(*a*) A satisfactory treatment for phosphorus burns.

(*b*) A satisfactory treatment for burns and other effects caused by poisonous gases.

(*c*) An improved method for treatment for lung irritants like phosgene.

(*d*) Effects of gas (automobile exhaust, cooking gas) poisoning and process of recovery.

(*e*) Facts bearing on shell shock.

(*f*) Facts bearing on treatment of traumatic shock, or shock following severe injury.

10. *Methods of resuscitation:* In drowning, coal-gas poisoning, and electrocution, cyanide poisoning.

11. Almost all we know about the *stomach, intestine,* and *liver.*

12. Much that we know about *heart action* and the effects of drugs on it.

13. Much that we know about *dropsy,* and *kidney disease.*

14. The accuracy of the indirect method of measuring *blood pressure* in man. When the physician takes the blood pressure, he and his patient should remember the *debt owed to the dog.*

15. Development of new operations:

(*a*) On the heart and its valves.

(*b*) On the lungs.

(*c*) On the blood vessels.

(*d*) On the brain.

(*e*) On the stomach and intestines.

(*f*) On the blood transfusion.

(*g*) On the ovaries and womb.

16. *Rickets,* a common disease that affects children and young animals. The first experiments bearing on the cause and cure of this disease were performed on puppies. Now *this disease can be prevented and cured.*

17. *Antidotes* to veronal and luminal (sleeping drugs) poisoning.

18. *On the action of some powerful drugs.* The action of a number of medicines: *epinephrin,* which is used to check hemorrhage and to abolish distress in asthma, is tested on dogs by United States Government requirement. *Pituitrin,* a drug used in childbirth, is tested on guinea-pigs and dogs. *Wood alcohol* was first shown to be harmful by experiments on dogs, and the cause of "ginger jake paralysis" was found by studies on the dog.

TO SUMMARIZE

The dog's contribution to our knowledge of the function of the organs of the body would fill a volume. Scientists, who know their business and duty to society, just as the lawyer, banker, engineer, and architect know their business and duty, hold that the dog is necessary for experimental purposes. Detailed reasons cannot be pointed out to lay persons, because they do not know enough anatomy and physiology. But the following general statements can be made: *Dogs are necessary* because—

1. They can live a healthy life in relative confinement.
2. They are large and their structures can be easily operated.
3. Like man, they eat all kinds of foods.
4. They have diseases in common with man.
5. Structurally and functionally they are very similar to man.
6. They are so numerous that in large cities thousands are picked up and killed yearly. Of these, a small number are drafted for humane experiments, the results of which serve dog and man alike.

When a dog is operated on, it is put to sleep or a powerful pain-killing drug is used.

WHAT SCIENCE HAS DONE FOR THE DOG

1. We can now prevent and cure rabies in the dog.
2. We can now kill the hookworm, which infests dogs as well as man and which makes it difficult for dog fanciers to raise dogs.
3. We can now prevent and cure blacktongue in the dog.
4. We can do much to prevent and control distemper. The treatment is not perfect and further experiments must be done on the dog for the good of the dog.
5. We are now working to find a medicine that will kill the cruel heartworm in the dog.
6. We know how to operate on the dog and cure certain diseases of the thyroid gland and intestines.
7. We are learning about "puppy birth" in the dog which is important to dog fanciers.
8. We can prevent diseases in the dog due to improper food. Dogs need vitamins just as other animals do.

WHAT HAVE THE OPPONENTS OF ANIMAL EXPERIMENTATION DONE FOR EITHER MAN OR DOG?

Nothing! The opponents of animal experimentation, known also as antivivisectionists, would prevent experiments on dogs for the sake of dog-

kind. Antivivisection would make it impossible for veterinary science to experiment on one dog for the sake of dogs as a group.

Also, the opponents of animal experimentation themselves profit daily from the benefits of animal experimentation. They do not sense the fact that city life could not exist as we now know it if animal experimentation had not been practiced in the past. Without the knowledge which has come from animal experimentation, the grim specters of plague, typhus, yellow fever, malaria, and typhoid would still be rampant among us. Diphtheria would still take its toll of children's lives. Surgery would be primitive and anesthesia inadequate and unduly dangerous. Our knowledge of the function of the organs of the body and of life processes upon which the progress of medicine and the diagnosis of disease depends, would not have been gained, unless cats, dogs, guinea-pigs and other laboratory animals had been used. Scientific knowledge and the discoveries of medical science do not fall from the heavens like the manna upon which the children of Israel fed, but must be obtained through the arduous and persevering use of the scientific or experimental method. This method is the only known and proven method by which the warfare on disease may be conducted adequately and effectively. The opponents of biologic and medical progress would abolish this method, the use of which has been and still promises to be of such tremendous value to mankind.

It should not be forgotten that when crops are threatened with parasites, when farm animals and the human family are threatened by an epidemic disease, the legislators and citizens turn to the biologist and medical scientist for aid, and that the work of public health agencies are carried on either by, or under the direction of men and women trained in the medical sciences. The public has and must continue to manifest confidence in the moral and intellectual integrity, the sincerity of purpose and the humaneness of its biologists and medical scientists. The public must support them in their work, if in the future the public shall expect to benefit to a maximum extent, as it has in the past by expert advice, because expert advice is based on scientific facts which come from experimentation.

TRUSTS OPPOSING ANIMAL EXPERIMENTATION NOT CHARITABLE

"Animal experimentation as a means of promoting human and animal welfare has recently received the sanction of two tribunals of great importance, one in the United States and the other in England."

In the American case, the United States Board of Tax Appeals (25 B. T. A., Penn. Co. Insurance on Lives and Annuities, Executive Estate of A. S. Logan, deceased, petitioner v. Comm. Int. Rev., respondent) held that a bequest to a society organized for "the total abolition of all vivisectional experiments on animals and other experiments of a painful nature" was not a bequest to a corporation organized and operated exclusively for the prevention of cruelty to animals, and that the amount of such a bequest could not be deducted in computing the federal estate tax.

In the English case the Court of Appeal (The Law Journal, 71:329, 1931) raised the question whether "in the light of later knowledge in regard to the benefits accruing to mankind from vivisection," bequests designed to hinder and prevent vivisection would today be regarded as charitable bequests. On appeal, the House of Lords forbade the use for antivivisection propaganda of any part of the legacy concerning which the question was raised.

"Probably these two decisions represent the general trend of mature and cultured thought on the subject of animal experimentation, when uninfluenced by lurid appeals to the imagination. Both decisions were based on the orderly presentation of legal evidence, not on such clamorous, virulent, emotional speech-making as commonly fills the air when animal experimentation is discussed" by antivivisectionists before legislative committees.

Northwestern University,
303 East Chicago Avenue.

SOME OPINIONS ON ANIMAL EXPERIMENTATION

Jane Addams, Hull House, Chicago: Dr. A. J. Carlson, a distinguished professor of the University of Chicago, during the World War made a most valuable study of the piteous children who were suffering from starvation, and for months worked on their behalf in southeastern Europe. Immediately after the war I accompanied a scientific friend, whose discoveries in industrial diseases have necessitated research with living animals, in a survey of the war children throughout one country after another.

It is impossible to associate either Doctor Carlson or Dr. Alice Hamilton with inhumanity or lack of tender care for helpless creatures; to charge them, or their scientific colleagues, with cruelty is utterly to misapprehend them and their motives.

* * *

Charles W. Eliot, LL.D., President-Emeritus, Harvard University: We owe to scientific experimentation on animals the means of saving hundreds of thousands of children within the past fifty years, and untold millions of children in the coming years. But it is not human beings alone that owe an immense debt to modern animal experimentation. Animals also owe to vivisection great deliverance from disease and death. All the agricultural industries in the United States are deeply indebted to animal experimentation.

* * *

Harry Pratt Judson, until recently president of the University of Chicago: Men of real scientific attainments must not be prevented from pursuing their investigations for the benefit of humanity by idle sentimentality.

* * *

His Eminence, Denis Cardinal Dougherty, Archbishop of Philadelphia, Pa.: To forbid vivisection would be to hamper science, do a mischief to the human race, and foster misplaced sympathy.

* * *

Right Reverend C. H. Brent, Bishop of Western New York: I sincerely hope that the efforts made by the antivivisectionists to eliminate this mode of scientific investigation will not meet with success.

* * *

Reverend John Haynes Holmes, Minister of the Community Church, New York: As regards the surgeons who are engaged in this business of vivisection, I have to state that I do not believe for a single moment the charges

that are so wantonly brought against them. I know some of these men. I have met the most distinguished of them, who has been for years under most virulent attack. I have gone through his laboratories, I have witnessed his performance of a vivisection experiment, which was of the character of most severe major operations. To accept the charges of cruelty against scientists of this type—this is a thing impossible to me.

* * *

Ernest Thompson Seton: I learn now from your reply to the Baynes article that you (the opponents of medical science, called antivivisectionists) are opposed to all experiments on living animals, and that you utterly condemn the work of the Pasteur Institute, the Rockefeller Institute and allied laboratories. I have to thank the studies of such institutions for the fact that my wife is alive today. Kindly accept my resignation from the Vivisection Investigation League, to take effect immediately.

* * *

Colonel David S. White, Chief Veterinarian of the American Expeditionary Forces: Anyone who is familiar with what vivisection has done for mankind and animal kind must realize its value to the world.

* * *

William J. Mayo, M. D., The Mayo Clinic, Rochester, Minn.: My brother and I are strongly in favor of vivisection. In the clinic there are large laboratories in which a number of physicians are constantly at work on investigations which depend on animal experimentation.

* * *

President Angell of Yale University: We find no obstacle to the practice of animal experimentation in any intuitive moral convictions, nor in the traditional morality of our race.

ANTIVIVISECTION*

By Chester Rowell, LL.D.
Berkeley

I

THE usual antivivisection bill has been introduced in the legislature, this time under the sponsorship (presumably "by request") of Senator Roy Fellom of San Francisco. It would, the dispatches say, "forbid universities, research laboratories and experimental stations from using animals for experiments or demonstrations of any kind."

This is the regular biennial attack, ostensibly on "cruelty," but actually on science. It has never passed the legislature and would be vetoed if it did. Even the periodic efforts to pass it by initiative have met with decisive defeat. Nevertheless, because the opponents of science are persistent, its defenders must be vigilant.

That the real opposition is to science rather than to "cruelty" is shown by the fact that these bills always authorize the infliction of pain on animals for other purposes, but prohibit scientific experiments even without pain. They all permit branding, dehorning, spaying and gelding on farms, without anesthetic, but forbid opening the vein of a mouse or a guinea pig in the laboratory, even under anesthesia. Most of them would prohibit feeding one rat on wheat and another on corn, to study the comparative processes of digestion. They permit the slaughtering of cattle for food and the poisoning of squirrels for protection, but they would forbid a pin-prick in a rabbit to measuse the dose of insulin to save a human life.

The "cruelty" part of the crusade is simply untrue. If the torture tales of current antivivisection pamphlets were correct, then every university president in the United States, every dean of every medical school and every doctor you personally know would be a liar. These are the men to whom we have entrusted the guidance of our youth and the safeguarding of our lives. If they were men who would solemnly lie to the world, on a matter of which they have personal knowledge and cannot be honestly mistaken, that would be worse than the "tortures" of which they are accused. Better close our colleges than have our sons and daughters corrupted by such men, and better die untreated than permit ourselves to be operated on by a surgeon who would lie about an operation on a dog. Instead, these are the very men whom we trust above all others.

The antiscience attack is the more insidious because fewer people are equipped to check its statements. The allegation is that animal experiments have added nothing to human knowledge, anyway. But careful reading will usually disclose that the real meaning is that there is no such knowledge to add to. It is impossible to deny that animal experiments discovered antitoxin and insulin, but it is possible to question whether these were worth discovering. Nobody who knows the facts, to be sure, does question it; but there are many who do not know the facts. It is possible to think that it is right to make soup of the flesh of slaughtered cattle, but wicked to make adrenalin of their glands. Absurd as it seems, some persons do think just that.

So let us get two things straight:

First, "vivisection" is not torture.

Very few laboratory experiments involve cutting, and these are done under an anesthetic, whenever it would be used in operations on human beings. This writer has had done to himself, with and without an anesthetic, practically every surgical thing that is done to animals in laboratories — the last one five minutes before this paragraph was written. And we have all inflicted on rats, to get rid of them, worse suffering than they ever undergo in laboratories.

Most laboratory experiments are medical, not surgical, and involve no more discomfort to the animals than the same diseases do to men. If one sick rabbit will save a thousand sick babies, is not that worth while?

And, second, the real opposition is to science. In a democracy men have that right. A man need not believe that quinin kills malaria or that vaccination prevents smallpox. He may even think that strychnin is not poison. But he must not, on that belief, administer it to others. Neither should he have the power, because he does not know that antitoxin cures diphtheria, to forbid the pin-pricks in horses and guinea pigs, required for production of antitoxin and the measurement of its dosage.

* Reprinted from the "World Comment" column of the San Francisco *Chronicle*, March 9, 1933.

The democratic right not to know the truth does not alter the fact that it is the truth. The laws of nature still operate, whether you "believe in" them or not. Nobody who recognizes the existence of medical knowledge doubts that animal experimentation has contributed enormously to it. To prohibit the use of animals in the Wassermann test for syphilis would be like prohibiting the use of the microscope in examining water for typhoid. Men do have syphilis and water does carry typhoid, even if there are those who choose not to believe it.

The fact is that medical research, mostly on animals, has already banished from the earth most of the plagues that once afflicted mankind and is on the way to control the others. Even George Washington and Louis XIV were pockmarked with smallpox. Now almost nobody has it. We no longer fear cholera, typhus, bubonic plague, or yellow fever. Malaria is under control; diphtheria preventable and curable; typhoid fever possible only by neglect; and most of the other contagious diseases dwindling. Tuberculosis is understood and has become a minor factor in the death rate. Influenza is still a mystery and cancer baffles us. Some thousands of white mice are now being used in investigations to unlock its secret. Shall we make this pursuit of knowledge a crime?

* * *

II*

This is more about "vivisection."

Senator Roy Fellom and numerous others write to explain that a bill recently criticized in this column is not against vivisection generally, but merely forbids the sale of condemned dogs from the pound for that purpose. The information that the bill was general came from an Associated Press dispatch from Sacramento, and the arugments then made are still good against such a bill and the perennial agitation for it. Only a part of them would apply to this separate dog pound bill. They do hold, however, against the motives of most of its supporters, whose letters show that their real opposition is to vivisection generally. They are interested in this bill as a first step.

For the dog pound bill separately, if it were separate—as it is in the minds of a few, but not of most of its advocates—there are arguments which, though not conclusive, are sincere and practical. But even these would have no force if it were not for the lurid fictions circulated by the antivivisectionists. If people knew what happens to dogs in laboratories, the humane work of the pounds in taking up stray, disabled and unwanted dogs would not be hampered by the figment of their possible "torture." It is no worse for a dog to be chloroformed in the laboratory than to be cyanided in the pound. Either fate is a mercy to the only dogs on which it is imposed. And even to meet this point no law is necessary, since any pound which finds itself handicapped by it can meet it by a rule of its own.

It cannot be too much emphasized that the first question of this whole issue is one of fact. If the things described in the antivivisection pamphlets do happen, they ought to be stopped. If the men who, of their own knowledge, say that they do not happen are liars they ought to be ejected in disgrace from their present positions in charge of the education of the youth of the country and the training of those who are to guard its health. The scientific aspects of the problem may be arguable (though no scientist does argue them), but the question of fact is not. These things are or are not facts, and the charge that they are facts is capable of proof or disproof by evidence. Until there is agreement that these torture tales are or are not true there is no basis of fact on which to conduct the rest of the argument.

The evidence that they are not true comes from absolutely every person who has first-hand knowledge, and whose word would be taken as conclusive on any other subject. These are the men to whom we entrust our lives and the mental and moral integrity of our children. They are authorized by law to administer poisons, to cut up living human beings, and to determine upon what knowledge and precepts the coming generation shall enter responsible life. They attend us in birth and ease us in death, and are entrusted, all our lives, with a responsibility and a confidence which we would grant to few other men. On any other question their word would be unhesitatingly accepted. And they say, on their honor, and on personal observation, that these things are not true.

The evidence on the other side is nearly all unverified and second-hand, presented by those who do not personally know whether it is true or false. Try it out yourself. Ask whichever physician you personally know to be an honorable gentleman, whose word you would take on any other subject, what he has personally seen in laboratories. Ask any antivivisection circulator of pamphlets which of the things in that literature he or she has personally seen. The answer, of course, will be "None." Read the literature itself, not on its science or antiscience, but on its sheer allegations of fact. Eliminate outright any quotation which does not state from what book it is taken, giving page and date of publication. No quotation which omits these verificatory details is worthy of credence. Actual study of many such quotations shows that the words "under complete anesthesia" have been deliberately omitted from them. Where these data are given, look them up in the original book. You will be surprised.

Examining the evidence in this way, nine-tenths of it simply disappears. What is left?

A few things. Cutting in the brain is done without anesthetic, for the same reason as cutting hair or fingernails. Hypodermic injections and vein punctures are done without anesthetic, on animals as on humans, because they hurt less than the anesthetic itself. There are authentic accounts of horribly painful experiments, in the days when human surgery had also to be done without the then unknown mercy of anesthesia. And there are a very few investigations—so rare that most men who have spent their whole lives in laboratories have never seen them—that have to be conducted

* From the San Francisco *Chronicle*, March 24, 1933.

painfully, on conscious animals. Such pain is inflicted a million times on farms to once in laboratories, and can be done in no laboratory without the express permission (almost never asked or given) of the dean. And there is the direct testimony of a few discharged laboratory workers that the doctors are liars. Evidently somebody is. There is unanimous agreement that nearly all the experiments are medical and dietary; not surgical. The surgical ones are done under the same precautions as on humans.

These are questions of physical fact, capable of ascertainment. Until they are agreed on, there is nothing to discuss on the scientific or human side. Why argue whether it is useful or ethical to "torture" animals, unless in fact they are tortured?

149 Tamalpais.

SUBCUTANEOUS EMPHYSEMA WITH ASTHMA*

By H. D. Van Fleet, M.D.
H. Miller, M.D.
AND
A. J. Scott, M.D.
Los Angeles

Discussion *by J. J. Singer, M. D., Los Angeles; Hugh K. Berkley, M. D., Los Angeles.*

SUBCUTANEOUS emphysema with asthma is a rare condition. A careful search of the literature reveals only fifteen cases, to which we are now adding four, thus making a total of nineteen.

The mechanics of the production of subcutaneous emphysema are similar to those which may, at times, produce spontaneous pneumothorax. The sequence of events may be outlined as follows. An obstruction in a small bronchus or bronchiole, acting as a one-way valve, allows air to enter a part of the lung on inspiration, but hinders or blocks its normal escape on expiration. With the increase in volume and pressure of the trapped air the vesicles balloon, the intervening partitions rupture, allowing the vesicles to coalesce and thus form blebs or bullae. With the onset of violent coughing and respiration, as in a severe asthmatic attack, there are wide and rapid swings in the differential between pulmonary and intrapleural pressure, such that a bulla or bleb ruptures, and the air from the lung then escapes either into the pleural cavity to produce a spontaneous pneumothorax or, following the reflections of the pleura and pericardium or the perivascular tissues, invades the mediastinum (Kelman[1]). Spreading upward through the mediastinum, the subcutaneous tissues are invaded and subcutaneous emphysema occurs, extending upward to the neck, occasionally onto the cheeks, downward on the arms to the wrists, over the thorax, and even down on the abdomen to Poupart's ligament and beyond. Not all cases have the same distribution; some are more extensively involved than others. But the picture is characteristic and



Fig. 1, Case No. 1.—Note swelling right side of neck.

the crepitation of the skin typical. The individual looks swollen over the involved areas.

Joanides and Tsoulos[2] conclude from animal experiments, using the dog, that simple subcutaneous emphysema is harmless.

We report four cases whose symptoms are similar in all respects to the published cases.

REPORT OF CASES

Case 1.—Esther I., ten years old, was seen by Doctors Piness and Miller in October, 1924, with an attack of asthma which had persisted for the previous forty-eight hours.

Family History.—Father and maternal aunt had asthma.

Past History.—In infancy had eczema of arms and legs. The first attack occurred in the winter, and persisted throughout the year. The father owned horses, goats, and chickens, and the child was free of asthma when away from home.

Skin tests showed the patient to be sensitive to her mattress, and its removal was advised.



Fig. 2, Case No. 1.—Emphysema subcutaneous right side neck.

* The authors wish to thank Dr. Lewis Gunther for the privilege of reporting Case No. 3. They also wish to thank Dr. L. Visscher for assistance in translating the Dutch articles, and Dr. J. M. de los Reyes for assistance in translating the articles in Spanish.

TABLE 1.—*Tabulation of Reported Cases*

No.	Name of Author	Age	Sex	Asthma Since	Nationality
1	Watson	18 years	Female	Childhood	British
2	Calverley	17 years	Male	Childhood	British
3	Whitby	25 years	Male	Childhood	British
4	Kahn	6 years	Female	Past six years	U. S. A.
5	MacDermot	22 years	Male	Past six years	Canada
6	Scheltema	30 years	Male	First attack	Holland
7	Artagaveytia	18 years	Male	Childhood	Uruguay
8	Kruysveldt	22 years	Female	One year	Holland
9	Davidson	9 years	Female	Eight years	British
10	Pastorino	9 years	Female	Unknown	Uruguay
11	Pastorino	14 years	Male	Childhood	Uruguay
12	Sheldon & Robinson	16 years	Male	One year	U. S. A.
13	Kirsner	38 years	Male	Six days	U. S. A.
14	Dietrich	5 years	Female	Two and one-half years	U. S. A.
15	Dietrich	7½ years	Male	Five years	U. S. A.
16	Van Fleet, Miller & Scott	10 years	Female	Two and one-half years	U. S. A.
17	Van Fleet, Miller & Scott	5 years	Male	Three and one-half years	U. S. A.
18	Van Fleet, Miller & Scott	28 years	Male	Twenty-one years	U. S. A.
19	Van Fleet, Miller & Scott	19 years	Female	Two years	U. S. A.

In January, 1924, the patient came to the clinic with the history of freedom from asthma since disposing of her mattress, but that five weeks previously she had had a cough, pleuritic pain in the lower left chest, and fever. A physician diagnosed this as pneumonia, and the girl was in bed for two weeks.

Physical examination on the October visit presented dyspnea with asthmatic breath sounds, accompanied by sonorous and sibilant râles. There was slight cyanosis and the girl complained of some soreness in the throat. Her neck on the right side was markedly filled out, obliterating the bony landmarks from the angle of the jaw to below the clavicle. On palpating this region, crepitations were plainly evident and were confirmed by auscultation. The left side of the neck showed no crepitations, but with the stethoscope crepitations could be made out. X-ray examination showed subcutaneous emphysema of the neck in the region above described.

Diagnosis. — Bronchial asthma with subcutaneous emphysema. The girl made an uneventful recovery, and has been seen from time to time since, reporting in 1935 that she had been free of asthma.

* * *

CASE 2.—James W. was five years old when he entered the California Hospital on October 7, 1932, complaining of dyspnea. He had been suffering with an attack of asthma for about twenty-four hours.

Past History.—He was first seen in the out-patient department in June, 1931, when he was three and one-half years old. He was slightly underweight and short for his age. Physical examination was negative, except for injected gums and swollen tonsils. He was not seen again until the following October, when, on account of repeated attacks of asthma, he was given a series of allergy tests. These tests were negative. He was placed on elimination diets and apparently did well for some months, and gained in weight and height. He seemed better in every way when using a limited amount of wheat.

Family History.—The mother and maternal grandmother were asthmatic.

Examination.—When he entered the hospital, October, 1932, the patient was well developed and well nourished but very listless, with his eyes rolled up. There was marked dyspnea and cyanosis. Respirations were 65 and pulse 160 per minute, with a rectal temperature of 101.6 degrees Fahrenheit. The tonsils were large and red. On palpation there was subcutaneous emphysema from the neck down to the abdomen, most marked on the right side and extending to the right hip. There were no cardiac murmurs, and the breath sounds were tubular with many sonorous râles, especially over the upper left lung posteriorly.

On October 8, 1932, a roentgenogram showed the heart in normal position, the lungs clear and both diaphragms of normal curvature. There was air in the soft tissues outside of the chest wall on both sides of the neck, on both shoulders, and down to the right hip and thigh almost to the knee.

Laboratory Reports.—Throat culture and smears were negative for diphtheria. Urinalysis showed a trace of albumin and acetone, and, microscopically, no pathological elements.

Blood counts: Hemoglobin, 90 per cent; erythrocytes, 5,040,000; leukocytes, 10,500; polymorphonuclears, 75 per cent; red cells and platelets appeared normal on the smear. The following day the leukocytes were 6,300 and the hemoglobin 79 per cent.

Course. — There was no relief from ephedrin or epinephrin, which had been given prior to entrance to the hospital and while in the hospital. Hot medicated steam inhalations and free use of water and orange juice appeared to do good. There was a gradual subsidence of the symptoms, excepting for the emphysema, and the patient was discharged to his home on October 11, three days after entrance. At that time he had a normal temperature, pulse, and respirations.

On October 17, 1932, he was seen in the out-patient department, and his emphysema was entirely gone.

* * *

CASE 3.—Gilbert S., twenty-eight years old, was seen by Doctor Miller, in consultation with Dr. Lewis Gunther, at the Cedars of Lebanon Hospital on September 20, 1934, with the complaint of severe asthmatic attack of twenty-four hours' duration, unrelieved by usual therapy, and puffiness of the face and neck, with partial closure of the left eye.

Family History.—A brother and sister had asthma.

Past History.—Asthma started when about twenty-one years old and occurred several times a month, starting with nausea and vomiting. The patient was an upholsterer by trade.

Present History.—Doctor Gunther had seen this man at 9:30 a. m. and, getting no results from the use of epinephrin, had sent him into the hospital.



Fig. 3, Case No. 2.—Emphysema around neck and in axillae.

Physical Examination. — The heart was negative for murmurs, the bronchi filled with wheezing râles, and on inspection the face was puffy with partial closure of the left eye, the neck was swollen and on palpation there was crepitation, which was also present over the thorax to the lower costal margin. The rest of the physical examination was essentially negative. There were dyspnea and slight cyanosis.

Laboratory Reports.—Wassermann was negative, urinalysis showed some albumin and, microscopically, some hyalin and a few granular casts. Blood counts showed: hemoglobin, 95 per cent; erythrocytes, 5,230,000; leukocytes, 12,300; polymorphonuclears, 81 per cent; and the blood smear was normal.

Roentgenogram report: Hilus increased in size and density, subcutaneous emphysema in the neck, in the supra- and infraclavicular regions, and midaxillary regions bilaterally.

The temperature on entrance to the hospital was 100.4 degrees Fahrenheit, rising to 102 degrees Fahrenheit; but on discharge it was normal. Therapy was epinephrin and pituitrin in small doses, frequently repeated, and the use of sedatives as needed. On September 29 the patient was discharged from the hospital with only a moderate amount of subcutaneous emphysema. A second episode of subcutaneous emphysema, accompanying a violent asthmatic attack, occurring about one year later, is reported by Doctor Gunther.

* * *

Case 4.—Mrs. E. K., nineteen years old, was first seen at her home the night of June 10, 1936. Her obstetrician had seen her this same day because she was "not feeling well and had a cold." She was about four months pregnant.

Past History.—The patient was healthy as an infant and young child until an attack of bronchopneumonia at the age of two years. Six weeks later she had her first attack of asthma, and from that time until she was fifteen years old she had frequent attacks. At fifteen she was studied and found sensitive to several foods, as well as house dust, cat hair and dander. She adhered strictly to the principles advocated by her physician, with good results, until September, 1935, when she became careless and had several minor attacks of asthma until December, 1935.

Family History.—No asthma.

Present History.—The patient had been feeling better than usual until June 8, 1936, when she changed her residence, moving into a house previously occupied by others. She spent the morning of the 8th and 9th cleaning and dusting. During the morning of the 8th she complained of a head cold, stating she could not breathe well through her nose, and there was a constant nasal discharge. The morning of the 10th she became wheezy, commented through the day on the return of the asthma and as night came on became dyspneic. She had no results from medication formerly successfully used. During the evening she had

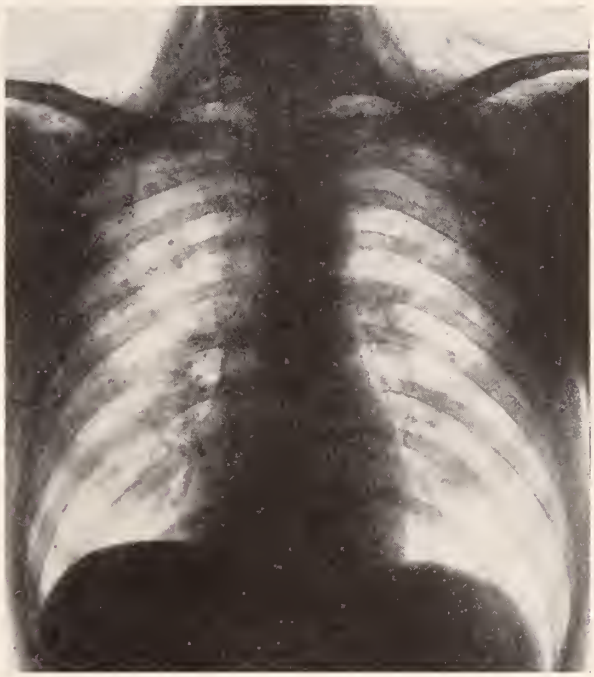


Fig. 4, Case No. 3.—Emphysema in supraclavicular regions, slightly in axillae.

to sit up in bed with her head resting on pillows in front of her. At 10:30 p. m., becoming panicky because of the dyspnea, she called for help.

Physical Examination.—On inspection the patient appeared to have a large goiter, this impression being created by the large collar-like swelling of the neck. The respiratory effort was most violent and the patient was very cyanotic. On palpating the skin of the neck, trunk and the upper extremities, it was found that all areas were crepitant from the jaws down to the lower part of the abdomen and down both arms to the wrists. Percussion revealed the entire lung area to be hyper-resonant. On auscultation the inspiratory effort was short but the expiratory effort was prolonged. There were no normal breath sounds, these being replaced by high-pitched musical râles. There was not much coughing. The heart rate was 132 per minute and regular. The blood pressure was normal and the temperature was 100.6 degrees Fahrenheit.

Course.—Hospitalization was advised but not accepted. By the use of epinephrin hydrochlorid, 1:100 in a nebulizer, the patient was considerably relieved. With amytal, four and one-half grains, repeated in one hour, plus the epinephrin solution spray every hour during the night, the patient got some sleep and felt more comfortable the next day. As she was not getting adequate care at home, she was moved to the hospital, June 12 to 14, and rapidly improved. On entrance to the hospital the temperature was 99.6 degrees Fahrenheit, and on discharge it was normal. Urinalysis was negative. Blood showed: leukocytes, 6,200; polymorphonuclears, 76.5 per cent. Eight days after the return home all evidence of the subcutaneous emphysema had disappeared. During the remainder of her pregnancy the patient was free of asthma and was delivered normally on December 1, 1936. She has been well ever since.

COMMENT

In the accompanying table the reported cases,[5] together with our own, have been briefly tabulated. There are a total of nineteen cases, of which ten were in foreign lands and nine in the United States. There were eleven males and eight females. The ages vary from five to thirty-eight years. Seven cases were under fifteen years of age, and twelve were over. Sheldon and Robinson,[3] Kirsner,[4] and Dietrich[6] give complete bibliographies, which have been carefully checked.

The etiology of the asthma in the reported cases was unknown in most instances; all authors commented on the cyanosis and dyspnea present in each case. The subcutaneous emphysema usually appeared after the individual had been suffering with a violent attack of bronchial asthma, lasting from several hours up to six days, as in Case 13 on the chart. In all reports the air was absorbed within ten days and there were no sequelae.

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DISCUSSION

J. J. Singer, M. D. (2007 Wilshire Boulevard, Los Angeles).—The four cases of subcutaneous emphysema described by the authors indicate the anatomic pathway air takes when a rupture of pulmonary tissue occurs and no pneumothorax is present.

Ballon and Francis in *The Archives of Surgery*, December, 1929, Vol. 19, Part II, showed the course air may take in the production of mediastinal and subcutaneous emphysema. It may spread subfacially between the costal pleura and the intrathoracic fascia. A rupture of an emphysematous bleb, which is the usual cause of interstitial emphysema, may allow air to dissect at first interstitially and then to the hilum of the lung; thence into the mediastinum subfascially and over the entire body. The air may dissect along the trachea to the floor of the mouth—it may follow the sheaths which surround the larger blood vessels; the axillary and femoral vessels may be compressed. Occasionally it may extend retroperitoneally and outline the kidneys.

The symptom of dyspnea is to be expected if the mediastinum retains the air; a tamponade of the large vessels occurs, likewise pressure on the trachea.

The number of reported cases are few, but undoubtedly many minor cases occur which escape detection.

Unless the emphysema is producing alarming symptoms no treatment is indicated, but at times incisions in the subcutaneous tissue may permit a rapid elimination of the air.

Hugh K. Berkley, M.D. (1136 West Sixth Street, Los Angeles).—Subcutaneous emphysema as a complication of a severe asthmatic attack apparently is a rare condition. This seems amply confirmed by the author's review of the literature.

With full appreciation of the severity of the attacks in some cases of asthma, it is to be wondered that it does not more frequently occur. One is lead to suspect that more cases occur, but that they have passed unrecognized or perhaps have not been reported.

Similar attacks of subcutaneous emphysema occur in pneumonia, the mechanism of production being precisely the same as the mechanism described in asthma.

OBSTETRIC OBSERVATIONS*

ON SOME IDEAS AND PROCEDURES NOT COMMONLY FOUND IN THE TEXTBOOKS

By Benjamin Bakewell, M.D.
Santa Barbara

Discussion *by Donald G. Tollefson, M. D., Los Angeles; Frank W. Lynch, M. D., San Francisco; Edward N. Ewer, M. D., Oakland.*

IT is my purpose in presenting these notes to call attention to some observations I have made or experiences I have had in the care of patients over a period of many years which I have not found mentioned in the current textbooks. It happens to any observing physician that instances or conditions will arise in the course of his contacts with patients in which some minor or relatively unimportant experiences may provide him with an observation or procedure which he is able to use again to advantage in the treatment of his cases. I do not mean to suggest that these observations are necessarily original with me or have not been repeatedly noted by others under the same circumstances, but I do believe that since they have not found their way into the current records, they may be of sufficient value to make it worth while to record them.

As my interest during recent years has been mainly in the field of obstetrics, most of these observations are confined to this subject.

MECHANICS AND OBSTETRICS

I will open with the positive statement that a good obstetrician must be a good mechanic, and that study, training and experience, necessary as they are, do not make an obstetrician unless he has the aptitude to envision his problem with the eye and mind of the natural mechanic. We have all seen well-read and well-trained surgeons who can ably discuss pathology, diagnosis and treatment, yet who cannot operate with the same ability because they cannot learn to use their hands or a tool, and have no vision of the mechanical procedure involved. This is particularly true of the obstetrician. The delivery of the fetus through the birth canal is a complicated mechanical procedure; and where it is necessary to give artificial aid, this must be done by inducing from below the same mechanical maneuvers which must be pictured, step by step, in the mind and by the hand of the operator in order that there may be a successful conclusion.

How many times have we seen the doctor push on the forceps, drag out the baby, injure the fetal

* From the Santa Barbara Clinic, Santa Barbara.

skull, traumatize the birth canal, himself completely satisfied if the child breathes and the mother lives, and throughout the procedure wholly unconscious that he has not done a skillful and satisfactory delivery because he does not see the problem with the eye and mind of the natural mechanic. Let us say again that the good obstetrician must be a good mechanic.

BEHAVIOR COMPLEX

The significance of the behavior complex in diagnosis of the stage of labor:

The behavior of the patient during her pains may be used by the observer to indicate roughly the stage of labor. In the early period of labor the patient may complain vociferously, but it is significant that her facial expression remains placid. She smiles and is cheerful between her pains while complaining of their severity. However, as time goes on, with dilatation progressing and the fetus sinking lower and lower in the pelvis, her face loses its placidity and becomes distorted with suffering and, notably, she loses her smile. A smiling woman in labor is a woman in the early first stage, regardless of the evidence of nurses and interns. This is a rule that seldom proves false.

In my early years of home deliveries, before the days of rectal examinations, and where I did not feel too sure of my asepsis, I was wont to depend on the character of the pains and their effect on the behavior of the woman, aided by external examination to determine the stage of labor, and was seldom disappointed in my prognosis.

AMNESIA

It is impossible for a normally sensitive individual not to be swayed in his judgment by suffering, and by the importunities of a patient's family. Such influences frequently result in too early interference in labor, which is not justified by the condition of the patient. Many mothers are delivered instrumentally before complete dilatation of the cervix because of the cries and complaints of the laboring woman and the prayers of her family, "Do something, Doctor!"

One can withstand these importunities for a time, but gradually they wear you down. "All right, put her on the table and call the anesthetist." On go the forceps, and the cervix is widely torn; while your cooler judgment says, "Hands off!" for another hour at least. This exemplifies a very practical advantage of amnesia in labor. The patient, though sometimes restless during her pains, sleeps quietly between them and it is quite obvious even to her family that she is not more than semiconscious of her condition, and she and her family will be satisfied to wait the normal progress of the labor so that the accoucheur is permitted to use his judgment without distraction or coercion.

This is an observation that I have never seen mentioned elsewhere, but that must have been noted consciously or unconsciously by everyone who uses amnesia and should, I believe, be given its due importance in weighing the evidence for or against "twilight sleep."

DIAGNOSIS OF PRESENTATIONS

In making a diagnosis of presentation, one should observe the contour of the woman's abdomen. When the vertex is in the occiput posterior position there is frequently a definite dip or hollow in the otherwise smooth curve just above the pubes. This is not present in the normal anterior presentation. This hollow resembles closely the dip in contour just above a distended bladder, but it is lower on the abdomen. The condition is probably occasioned by the physical contour of the anterior surface of the fetus, with the brow flexed over the chest in contradistinction to the smooth contour of the posterior aspect, the curved spine, and the occiput.

The rectal examination made to determine the presence or absence of dilatation of the cervix is frequently a very unsatisfactory procedure. If the cervix is effaced—that is, flattened out to almost paper thinness—it may be quite impossible to feel its margin through the rectovaginal tissue, so that a determination of the degree of cervical dilatation by this means is impossible. In these cases one should note with the finger the feel of the sutures of the fetal skull. If they can readily be outlined, one is feeling through the open cervix. If they are obscured or absent to the finger, the cervix is interposed and, therefore, cannot be dilated. By passing the finger over the sutures, one can then determine, by noting when the sutures become obscured, the degree of dilatation. This maneuver should be kept in mind during every rectal examination, and will often clear up an otherwise difficult problem.

INDUCED LABOR

For one cause or another it is frequently necessary to induce labor. The accepted method is to administer certain oxytoxics, and at the calculated height of their activity to rupture the membranes. This procedure sounds quite simple, but when the vertex is high and the membranes are stretched over it with little or no intervening fluid, one may insert an instrument, attempt to rupture the membranes, withdraw the instrument, and if no fluid drips out of the vagina there is no certain evidence that the membranes actually are ruptured. This uncertainty may be promptly allayed by the following procedure: Insert the dressing forceps through the cervix, pressing the tip lightly against the presenting vertex. Open the forceps slightly, close and withdraw them. If the membranes have been ruptured, there will be found in the tip of the forceps a few little fine hairs from the scalp of the fetus. This definitely settles the question.

ON CUTTING THE CORD

It is commonly advised that immediately after the delivery of the child we should wait until the cord stops beating before severing it, with the belief that the child continues to receive blood from the placenta until this occurs. This seems to me to be an illogical conclusion. Before birth there is certainly sufficient blood in the fetus and placenta for both, and after delivery the body of the fetus continues to hold all the blood it needs while that in the placenta is superfluous for it. In fact, if it were passed into its body, which is doubtful, it would be immediately destroyed. It is my practice to cut the cord as soon as is convenient and I have not noted any harmful effects.

EPISIOTOMIES

In certain cases of spontaneous delivery in which the patient is receiving respiratory amnesia during her pains, it is thought wise to perform an episiotomy. Under ordinary circumstances this is too painful a procedure to attempt without full anesthesia. It may, however, be done as follows without the realization of the patient that anything is being done by her doctor. Place the open scissors over the site of the proposed episiotomy between her pains, then as the next pain reaches full intensity and the perineum distends, the partially anesthetized patient being thereby distracted, make a quick partial cut. Repeat this procedure during three or four pains, and the full episiotomy will be accomplished with the patient quite unaware that it has been done. Thus you avoid full anesthesia with delay from the cessation of her pains and at the same time her resentment at being subjected to a painful procedure.

MEASUREMENTS

To most people linear measurements are rather vague, especially when expressed in the metric system. How many of us can mark off centimeters with any degree of accuracy without a scale? This is the reason for the custom of measuring lesions by comparison to familiar objects, such as the lemon or walnut. It is not necessary to point out the absurdity of such a method of measurement. I have found that the average male hand, measured across the second joints of the fingers, is approximately eight centimeters in width, or two centimeters for each finger. This makes a convenient and fairly accurate scale quickly applied to any object, never left in your other suit of clothes, and one which may be used by the surgeon when scrubbed and operating. I have found this very useful.

The above suggestions and procedures are offered for what they are worth. They have all been used repeatedly and have proved valuable to me. Whether they are worth passing on to others, I leave to you.

1421 State Street.

DISCUSSION

Donald G. Tollefson, M.D. (511 South Bonnie Brae Street, Los Angeles).—These observations, based on a long clinical experience, are always worth recording, and Doctor Bakewell's essay should serve as a stimulus to others for similar reports. The obstetrician must not only be a good mechanic, but he must be thoroughly familiar with the mechanism of labor. Failure to appreciate what can be accomplished under the proper conduct of the first stage of labor will invariably and unnecessarily increase the operative incidence.

There is no longer any argument to prevent the judicious use of analgesia in labor. Being able to assure the patient that the most of her labor will be erased from her memory makes for a more normal antipartum period. It also prevents, to a large degree, the nervous reaction following delivery.

The diagnosis of presentation by abdominal, as well as rectal and vaginal examination, has too often been neglected. The diagnosis of occiput posterior position is one of the most common findings by consultants in prolonged labors. Labors in such instances will be longer, but if recognized early their management will not be difficult. One point concerning the prognosis of labor in malpresentation or position is the accessibility of the cervical opening to the examining finger. Whenever it is eccentrically placed, laterally, or deeply posterior, progress will be slow. This observation also suggests some abnormality of presentation, position, flexion, or extension.

We have long been taught that the cord should not be cut until after pulsations have ceased; and yet it has been quite definitely shown that the increase of blood in the fetus is not affected by severing the blood supply of the fetus. It does seem, however, that after the patient delivers, if the gas anesthetic is discontinued some benefit may be derived by the administration of oxygen while the cord is still pulsating.

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Frank W. Lynch, M. D. (University of California Medical School, San Francisco).—Doctor Bakewell gives us much philosophy in his paper as well as a number of suggestions of value to the great mass of physicians practicing obstetrics. One can readily see that Doctor Bakewell learned these lessons from experience, and not from his teachers in the Medical School, or from any of the many textbooks which doubtless he has kept adding to his library these many years. The paper shows that the author has been a keen observer. While he does not say so, I have no doubt but that he learned in the school of hard knocks each point he discusses so well—probably while driving home and thinking over every detail of some case which had not gone so well as he hoped it would. Hindsight is a great teacher if we develop it properly. We all remember that Oliver Wendell Holmes said he always made his best speeches in his two-wheeled chaise while driving home from the dinner.

The practice of obstetrics, even more than nearly any other branch of medicine, compels its students to think logically and quickly from signs and findings. If the findings prove incorrect, the showdown comes usually so quickly and dramatically that the obstetrician cannot dodge responsibility for error. In most fields of surgery, days, weeks, or even months, elapse between treatment and the final result. Then, if the treatment was incorrect, Time has greatly softened the blow to the physician's ego; there has been sufficient time for him to forget his errors. There is no rude shock as the responsibility is thrust into his lap with a dull thud and sickening sound, as occurs when an obstetric case goes wrong—unless by chance you are a dull yokel who, as Doctor Bakewell says, feels completely satisfied if the child breathes and the mother lives after a forceps delivery in which the fetal skull is injured, and the birth canal very badly traumatized. There is no hope for that type of physician, yet there are many of them; they practice by virtue of license by the State Board of Medical Examiners; and do everything in medicine they wish to do—even as you and I.

Several times yearly I read in journals articles by physicians commending certain "knacks" as details in treatment which they have worked out for themselves, probably because most physicians have been, by necessity, self-taught in the practice of medicine. Doctor Bakewell has worked out points of great value; yet, like many other things in life, they are not likely to prove of greatest value to those who need them most: the beginner in obstetrics who needs them most will not know enough to recognize their great value. Yet ignorance of obstetric art does not prevent the beginner from accepting the care of obstetric cases, even though he has seen very few such in his medical school and hospital work: moreover, he may entertain only a dislike for the subject. Many physicians accept obstetric cases because they are the first work that comes to them, knowing that they may be the nucleus of a large and lucrative practice if the women are normal and deliver spontaneously in L. O. A. Naturally, they feel that they should give the patient some form of twilight sleep: they have no conception of the complications that may ensue from heavy medications during labor.

It is useless to say that medical schools should compel each student before graduation to have at least enough practical experience in obstetrics to warrant his undertaking the care of a normal case. Few agree as to how many cases that should be. Personally, I feel there should be at least seventy-five cases, yet most of the "State Board" require only twelve to fifteen. However that may be, the fact remains that medical schools in this country never will have funds sufficient to teach adequately any of the apprentice courses in medicine. Of the many nations rated as civilized, only Sweden gives such courses. Each student graduating in that country is compelled to obtain sufficient experience in obstetrics, not only to handle the ordinary

obstetric case, but also to treat properly a great many complicated cases. The effect of such treatment is reflected in its national maternal mortality.

The State Boards for Medical Licensure hold the key to the situation. The inadequate clinical prerequisites for obtaining the legal right to practice can be modified if the profession ever wakens to realize that the present methods are all wrong. Those who would shrink from undertaking such a herculean task may be stimulated a bit by the thought that if our country inaugurates state medicine it will do so because the nation has at last realized that the maternal mortality of the United States is very much greater than it has any right to be.

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Edward N. Ewer, M. D. (411 Thirtieth Street, Oakland).—I agree with Doctor Bakewell that the behavior of the patient is important in the diagnosis of the stage of labor. I have known delivery-room supervisors who could give more valuable information to the absent obstetrician after studying the character of a few pains than they could after making a rectal examination.

If untoward events of the labor necessitate exact checking of position and stage, a thorough vaginal examination is imperative. It can be accomplished with a high degree of asepsis, and is reliable in contrast to the guesswork of rectals.

About cutting the cord, I think it is now done immediately more often than twenty-five years ago. Waiting till pulsations stop, serves no useful purpose. Cutting it at once and allowing the placental end to bleed in the absence of another baby, is thought to hasten placental separation. Also the baby can be cared for without delay.

And this brings up for criticism the present-day practice of the initial cleansing of the baby. If scrubbed with soap and water, its rectal temperature will often drop two degrees centigrade. If wrapped up warmly and not bathed, the vernix will be absorbed in twelve to eighteen hours, the skin will be smooth and satiny, and the incidence of jaundice will be reduced to one per cent.

The vernix is not a filth product. It is a better ointment than can be compounded in a drug store. What possible good can vegetable and mineral oils do? Vernix is probably absorbed by the infant in utero, and if present at birth its cholesterin and other ingredients are still of value. I began this plan, sponsored by Keiffer of Brussels, on my service in the Alameda County Hospital ten years ago; eight thousand infants have now been so treated in this institution, and there has been a minimal occurrence of skin irritations and rashes.

In spite of Hippocrates' aphorism, "Life is short and the art long; the occasion fleeting; *experience* fallacious, and *judgment* difficult," we can on occasion turn with profit from the deluge of statistics the present medical literature vogue and listen to the opinions of those, like Doctor Bakewell, who have behind them painstaking years of thoughtful observation.

ADRENAL CORTEX IN TREATING CHILDHOOD ASTHMA: CLINICAL EVALUATION OF ITS USE*

By F. M. Pottenger, Jr., M.D.
AND
F. M. Pottenger, M.D.
Monrovia

Discussion *by E. Kost Shelton, M. D., Los Angeles; Leland Hunnicutt, M. D., Pasadena.*

When one faces a therapeutic problem he is inclined to try to find a single approach to its solution. Inasmuch as vital processes are complex, a single measure rarely accomplishes the end in view. Insulin simplifies the control of the diabetic, but it is far from commanding the full confidence of the physician in treating diabetes. Epinephrin has long been used in the treatment of asthmatic paroxysms, but we now find that crude extract of the adrenal cortex is an important adjunct in restoring the physiologic balance of the allergic patient. The acquiring of a comprehensive understanding of asthma has probably been delayed because we have had our minds too narrowly directed to its allergic nature. Because asthma is accepted as an allergic disease, it is natural to assume that its cause is some allergen. This thought has dominated the minds of medical men almost to the exclusion of all other ideas. The fact that the patient's general physiology might be an important part in the etiology of asthmatic symptomatology has not been sufficiently emphasized.

RECENT TREATMENT OF ASTHMA

For two decades the principal treatment of asthma has consisted of treating paroxysms with epinephrin, and attempting to desensitize the patient to specific allergens; of withdrawing the offending allergens; or of removing the patient from the environment in which the allergens are found.

A great deal of progress has been made by following this line of therapy. Many patients have been freed from their distressing paroxysms, and not a small percentage have procured a more or less permanent relief.

ASTHMATIC SYNDROME

The asthmatic syndrome is one of vegetative dysfunction. All allergies in their final analysis are due to cells whose physiologic balance is disturbed, which means that their permeability is altered. This in turn means that their function is more readily stimulated than normal.

Sensitization of cells in case of allergies may be caused by protein gaining access to the tissue, and requiring cellular digestion. Body cells are normally endowed with a power to digest proteins and accomplish it by producing antibodies, which are fixed to the cells and react with more or less violence when the same foreign protein again finds its way into the tissues. When once this function has become established it may remain for a long period of time, and may be very active when the allergens to which the cells form antibodies contact them, or when stimulated by other forces. It is probable that cells digest much protein without developing a pathologic degree of sensitization. We infer this from the fact that protein is known to enter the tissues without causing symptoms. Parenteral digestions as a normal function of cells may be more active in protecting the body than is realized. This suggests that the relief of pathologic allergies might be brought about physiologically by substances which will reduce the permeability of the affected cells.

Allergies are relieved by increasing the antagonistic effects of the sympathetic nervous system in such conditions as asthma and hay fever, either by central stimulation or by using the sympatheticotropic hormone from the adrenal gland; by lowering parasympathetic action by the use of atropin; by lowering the potassium intake and increasing

* Read before the General Medicine Section of the California Medical Association, at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

the calcium; by the administration of acids or ammonium chlorid; by starvation or the use of foods, which tend to decrease the alkaline balance. Such measures lessen the activity of the hypersensitive cells.

AUTHORS' ANALYSIS

Our discussion today will be limited to an analysis of a group of fifty allergic cripples complaining of asthma who have been under treatment for one year or longer. Though many have obtained relief in a shorter period of time, we have purposely chosen this group of severe refractory cases in whom we have carried out a program of prolonged treatment which has gradually evolved during the past six years. Each new feature of the treatment has been added after careful consideration, and we now attempt to explain the measures used, and to assign to them their due importance.

INITIAL METHOD

As previously reported,[1] we started our treatment of asthma with the whole adrenal gland and found it to be more effective than epinephrin alone, and most effective when given with a high salt intake. Our second step was the addition of a hydrophilic colloid diet[2] with an acid ash residue, high in mineral and high in vitamins. The third step was the addition of a series of exercises. In evaluating the various measures used, the adrenal hormones have exerted the most favorable influence on results; next, the diet; and then, finally, the exercises. The adrenal hormones form the basis of the regimen. Fineman[3] reported treating a series of four cases using a purified adrenal cortex preparation. His results were not encouraging. Wilmer and Miller[4] reported a series of seventy-two cases using the adrenal cortex. More recently Prickman and Koelschi[5] have made a similar report. Barbour[6] reported the use of dried adrenal material and thyroid, with favorable results in children. Todd[7] has made extensive anatomical studies of the allergic cripple, showing the marked variation in the anatomical structures of allergic children from those who are considered normal.

RATIONALE OF THE TREATMENT

The rationale of the treatment as we use it was previously described by us.[1] Though we referred but briefly to the dietary regimen in our previous discussion, we now utilize a semiketogenic diet which, on the basis of an adult diet, consists of approximately 2,300 calories, roughly 145 grams fat, 145 grams protein, and 100 grams carbohydrate. It is rich in known vitamins and minerals. The two main meals are built around a large, raw salad and a portion of meat consisting of not less than four ounces when cooked. Sugar and all foods high in carbohydrates except whole grain, fresh ground cereals are largely eliminated. Gelatin is used, one-half ounce or more at each meal, because of its hydrophilic colloidal properties which aid in digestion and mineral assimilation. The vitamins, other than those contained in the large green salad, are administered in the form of a high grade raw green pasture milk, and malt and cod liver oil. The use of the vitamin B complex is particularly stressed in those children showing large colons. Minerals are obtained from the milk and vegetables. Mineral concentrates are only occasionally used in the most severe cases of deficiency.

POSTURE

Nearly all of these children have poor posture, which is either a result of developmental failure or the secondary reaction to their disinclination to exercise. We attempt to correct this by the use of appropriate exercises. We specifically attempt to secure diaphragmatic breathing. Our exercises are graded from a method of simply controlling breathing to as strenuous physical exertion as the child can bear when he becomes stronger. One must always remember that overexertion is a definite menace to these asthmatic children. Athletic coaches often attempt to push them too fast, and they may undo much that the clinician, through patience and perseverance, has accomplished over a prolonged period of time.

INDIVIDUALIZATION IN TREATMENT

The complete therapy used in any individual case depends upon the physical findings in those patients. Though all the children and adults discussed in this paper have come to us primarily for the purpose of obtaining relief from their asthmatic paroxysms, we have, by studying each patient, tried to find in what manner he differs from normal physiologic standards. This we felt was a much better approach than a simple attack upon their allergic symptomatology. Although the allergy may be the most distressing symptom, we feel that as one understands the deviations from the normal, both in physical development and physiological response, he can more properly evaluate the therapy which is to be used.

As one watches and studies the changes which take place in growth and development, he usually finds that the fundamental physiological processes are also altered. These processes and the allergic symptoms seem to respond coincidently.

It is not the purpose of this paper to evaluate the deviations from normal that the allergic individuals show, but we do desire to mention some of the more obvious changes and to discuss the effect that the therapeutic regimen which we have instituted has had on certain prominent physical characteristics.

DATES OF ONSETS OF ASTHMA

The onset of asthma in the fifty patients reported here occurred in nine during the first year of life, nine during the second year, sixteen during the third, six during the fourth year, four during the fifth year, one during the sixth year, one during the eighth year, one during the ninth year and one at the age of 61; two were unknown.

If, however, from the standpoint of the patient's history, the first indication of allergy, such as difficulty with digestion, eczema or hay fever is considered, these figures change to twenty-three during the first year, seven during the second year, twelve during the third year, three during the fourth year, one during the fifth year, one during

TABLE 1.—*Summary of Findings of Fifty Cases of Asthma Under Treatment One Year or More*

Patient's Number	Age of Onset of Allergic Symptoms	Age of Onset of Asthma	Length of Time Breast-fed	Mother's Thyroid or Genital Disturbance	General Physical Improvement			Allergic Improvement			Beginning Treatment					Last Examination					Complications
					Marked	Fair	Poor	Marked	Fair	Poor	Chloride	Hemoglobin	Red Count	White Count	Eosinophiles	Chloride	Hemoglobin	Red Count	White Count	Eosinophiles	
C-10939	6 wks.	3 yrs.	4 mos.	Thy.	x				x		406		5.1M	7,300	7.5	461	99	5.0M	8,100	7.5	
C-10916		4 yrs.	8 mos.	G. D.	x			x			492	90	4.5M	6,700	12		104	5.0M	9,000	8.5	
C-10909	2 mos.	2 mos.	1 mo.		x				x			84	4.5M	9,400	13.5	461	90	4.6M	6,800	11.5	Pos. Tuberculin
C-10902	6 wks.	5 yrs.	mos.	Thy.	x				x		487	92	4.8M	9,700	11	450	98	4.6M	9,500	11	
C-10483	2½ yrs.	2½ yrs.	8 wks.		x				x			89	4.5M	11,300	24.4	445	89	4.5M	17,300	13.5	Severe Bronchiectasis P. T.
C-10449	10 mos.	1 yr.	None	Thy.	x				x			64	4.4M	10,700	12.5		78	4.9M	8,000	7.5	
C-10440	1½ yrs.	1½ yrs.	None			x		x				84	4.2M	11,200	4.5		80	4.4M	8,400	9	Pos. Tuberculin
C-10434	3 yrs.	3 yrs.		Thy.	x			x				97	5.0M	14,800	1	475	82	4.2M	5,400	12.5	
C-10398	3 yrs.	3 yrs.	5 mos.	Thy.		x				x		66	3.4M	8,000	8.5	387	86	4.4M	6,900	13	Bronchiectasis
C-10270	3 yrs.	3 yrs.				x		x				96	4.5M	7,900	5						Bronchiectasis
C-10860	3 mos.	2 yrs.	3 mos.	Thy.	x			x			454	106	5.0M	13,200	3	437	90	4.8M	7,800	4	Pos. Tuberculin
C-10864	20 mos.	4 yrs.	3 mos.	Thy.	x					x	450	76	4.7M	4,800	9		87	4.4M	6,000	2	Pos. Tuberculin
C-10804	6 mos.	3 yrs.	1 mo.	Thy. G. D.			x			x	387	81	4.7M	7,000	10	458	84	4.9M	7,400	8	Bronchiectasis; Pos. Tbc.
C-10793	5 yrs.	5 yrs.	9 mos.		x			x			461	100	5.2M	10,000	.5						Pos. Tbc.
C-10772	4 yrs.	4 yrs.	4 mos.	Thy.			x			x	479	85	4.9M	5,700	12						Undescended testes
C-10771	28 mos.	8 yrs.	4 mos.	Thy.			x		x		437	79	4.7M	11,000	5						
C-10767	6 wks.	1½ yrs.	2 wks.	Genital		x				x	458	90	4.6M	7,600	25.5	479	99	4.9M	12,000	12	Pos. Tbc.
C-10759	2¾ yrs.	2¾ yrs.	3 wks.	Thyroid		x		x			487	81	4.3M	9,000	4						
C-10844	2 yrs.	2 yrs.	3 mos.	Genital		x			x			77	4.0M	6,800	16	479	86	4.5M	6,300	7	Bronchiectasis
C-10889	6 yrs.	6 yrs.	None			x			x			77	4.0M	6,800	16	479	86			7	
C-10159						x			x			72	5.2M	17,400	6.8	461	90	4.7M	10,800	12	Bron.
C-10927					x			x			458	106	5.8M	8,200	5	461	999	4.2M	13,700	7	Pos. Tbc.
C-10633	2½ yrs.	2½ yrs.	3 mos.	Genital	x				x		461	77	4.2M	13,700	10		89	4.6M	9,200	6.5	Undescended testes
C-10731	2 yrs.	2 yrs.	8½ mos.	Thy.		x			x			81	4.2M	8,500	5	479	99	4.5M	7,200	5.5	
C-10722	1 mo.	5 yrs.	None	Thyroid		x		x			370	93	4.4M	9,400	3.5	466	87	4.7M		5.6	Pos. Tbc.
C-10712	9 mos.	5 yrs.	5 mos.	Genital		x			x		479	86	3.6M	7,600	3.5	416	86	4.4M		6	Bronchiectasis
C-10706	3 yrs.	3 yrs.	None	Thyroid		x			x			88	4.4M	5,600	4		76	4.1M	7,000	8.5	
C-10708	5 mos.	9 yrs.	5 mos.	Thyroid		x			x		466	90	4.6M	10,000	6.5		90	4.4M	7,700	6	Undescended testes
C-10697	1 yr.	1 yr.	3 mos.	Thy.		x			x			94	4.5M	9,800	5.5						Positive Tuberculin
C-10682	3 wks.	2 mos.	None	Thy.	x				x		433	79	4.0M	13,900	6	441	86	4.5M	8,700	8	
C-10670	Life	1 yr.	1 mo.	Thy.		x				x		89	4.5M	15,000	6		84	4.4M	9,600	6.5	Undescended testes P. Tbc.
C-10667	3 mos.	3 mos.	None	Genital	x				x			89	4.5M	15,000	6		93	4.8M	13,800	7.7	Bronchiectasis
C-10663	3 yrs.	3 yrs.	6 wks.		x			x			466	97	4.7M	8,700	14	466	102	4.6M	11,700	8	Pos. Tbc.
C-10664	Life	2 yrs.	7 mos.	Thy.	x				x		466	94	4.9M	13,200	27	451	100	5.2M	18,400	21	Pos. Tbc.
C-10640	2½ yr.	3 yrs.	3 mos.			x			x			88	4.3M	12,700	10	458	100	5.2M	15,000	6	
C-10631	1 yr.	3½ yr.	None	Thy.		x			x		475	90	4.9M	5,400	10		100	5.0M	10,800	3	
C-10608	2 mos.	2 mos.	7 mos.	Thy.		x			x			73	3.9M	12,600	13		75	4.4M	16,200	4	
C-10620	4 mos.	4 mos.	6 wks.	Thy. G. D.		x			x		466	95	4.9M	9,000	10	458	89	4.4M	8,400	8.5	
C-10550	Life	3 yrs.	None	Thy.		x			x		450	98	4.8M	11,100	5.5	450	95	4.6M	11,700	33	Pos. Tbc.
C-10537	Life	6 mos.	1 mo.	Thy.	x			x				77	4.2M	10,200	.5		86	4.7M	9,600	1	
C-10533	8 wks.	2½ yrs.	3 mos.	Thy.	x			x			471	85	4.2M	17,300	15	483	83	4.4M	7,300	8.5	
C-10516	2½ yrs.	2½ yrs.	None		x				x		483	86	4.6M	10,000	8	483	87	4.4M	5,200	7	
C-10505	3 yrs.	3 yrs.	3 mos.	Thy.	x			x				103	4.4M	17,000	13.5		90	4.4M	8,900	7	
C-10503	3 wks.	3 wks.			x					x	445	110	6.3M	27,000	10						Bronchiectasis
C-10531	4 yrs.	4 yrs.	1 mo.	Genital			x			x	492	86	4.8M	5,600	15.5	461	90	4.5M	8,300	14.5	
10594	2 yrs.	3 yrs.	1 mo.	Thy.	x				x		441	89	4.4M	6,900	14.5	461	100	4.9M	8,100	7.5	
C-10797	2 yrs.	2 yrs.	None	Thy.			x		x			94	4.7M	9,900	4.5	466	101	5.2M	8,200	7	Bronchiectasis Un. Testes
C-10656	2 mos.	1 yr.	None		x				x			84	4.2M	7,700	7.5	479	79	4.3M	11,300	15.8	Pos. Tbc. Un. Testes
C-10958	19 mos.	19 mos.	None			x			x		461	93	5.0M	10,100	18	445	100	5.2M	10,400	9.5	Bronchitis; Emphys.
10442	61 yrs.	61 yrs.			x			x			458	99	4.8M	12,100	10	483	79	4.1M	8,500	4	

the sixth year, one during the sixty-first year and three were unknown.

When the matter of breast feeding is considered, one patient was breast-fed for nine months, four for six months, fifteen for three months, fourteen for less than three months, and eleven not at all; five were unknown.

The intensity of the asthmatic symptoms seemed to be greater in the children who showed feeding difficulties. A comparatively accurate history of disturbance of thyroid (may this be partly vitamin B complex deficiency?) was obtained in the mothers of twenty-eight of this group, and nine reported disturbances of the generative system, without evidence of primary thyroid dysfunction. The history of seven mothers was unknown. Of this group thirty-seven mothers, or 74 per cent, gave a definite history of these disturbances.

OTHER FACTORS

Of the asthmatic group, ten showed some degree of bronchiectasis, and eighteen out of forty-five patients tested were positive to tuberculin. Three of these have become negative under treatment.

Six of the thirty-five boys in this group showed delayed descent of the testes, while the tendency of the remaining under the age of puberty was to present external genitalia smaller than normal.

The blood chlorids varied from 370 to 492 in twenty-eight cases. On first examination twenty-eight patients showed an average of 458.3, while at the end of treatment they showed an average of 458.6.

The hemoglobins of the group averaged 88.1 at the beginning of treatment, and 90.1 at the last examination. The red blood counts averaged 4,578,000 at the beginning of treatment and 4,619,047 at the last examination. The white blood count averaged 10,390 at the beginning of treatment and 9,478 at the end of treatment. The eosinophilic count averaged 9.5 at the beginning of treatment and 9.02 per cent at the last examination.

As a group at the beginning of treatment, muscular development of thirty-eight patients was poor, five was fair, and seven was good.

On the basis of the weight[12] for the height of forty-three of this group, twenty-one were above normal and twenty-two below normal. Of these patients forty were taller than standard, one not obtained, six shorter than standard and three normal. Full cognizance has been taken of the fact that children in California are, as a group, taller than children of other parts of the country.

MUSCULAR DEVELOPMENT

When muscular development, physical endurance and weight changes are considered in reference to normal development, twenty-four patients showed marked improvement, twenty-one showed moderate improvement, and five showed no improvement. When one considers the patients' condition during treatment, fourteen had no allergic paroxysms, thirty had paroxysms of less intensity and incidence, and eight had only temporary relief.

The patients constituting this group were under active treatment with adrenal cortex therapy for a period of one year or more, using daily doses of 1½ to 10 grams of raw gland equivalent three times a day with meals, depending upon the age and condition of the patient.

TREATMENT PROCEDURES

Inasmuch as such prolonged treatment cannot be carried out hypodermically, particularly in children in whom a psychical condition is a serious complicating factor, we have used the oral method. The adrenal extract we use is known to contain active cortin which has been shown to be effective by mouth by Grollman,[8] Hartman,[9] Britton,[10] and associates. Likewise there are probably other fractions of equal importance in this crude extract, made according to the method first described by Swingle and Pfiffner and modified by us, and described in a previous report.[11]

The fifty patients under discussion today have all been refractory to other methods of treatment, and this consequently means that the coöperation of the patient is difficult to obtain in some instances. Of the five patients in whom we feel that the results were unsatisfactory, our records indicate that coöperation was difficult to obtain. This is based on historical evidence of continuous overdoing, and inasmuch as we supply all the medication, we have the records of its consumption which gives us a further index of coöperation.

The factor of greatest importance in the results obtained seemed to be the coöperation. The severity of the disease seemed to relate particularly to the time of breast feeding or the type of formula used in early infancy. The response of the children of this group to therapy and subsequent attacks during the year mentioned was apparently related somewhat to the degree of bronchitis. Whether or not they had a positive tuberculin did not seem to exert any appreciable influence on the improvement of the asthma in the children.

On the other hand, recurrent attacks during treatment seemed to have a definite relationship to the degree of bronchiectasis. Alteration of the normal sexual development of the girls was inferred from their physical development, but could not be measured as in the boys. Our experience would indicate that not only in the younger boys, but the older ones as well, there is a definite evidence of sexual imbalance. This is partly brought out by the fact that these children on the whole were taller than normal standards for their age, while their weight for their height was approximately normal.

LABORATORY FINDINGS

From the standpoint of the clinical laboratory, little evidence of change is noted in the figures as presented. The general average of blood chlorides is almost identical. The hemoglobins are very close and likewise the total red counts. The eosinophilic count remains constant. There is a tendency for the white blood count to diminish. On the other hand, at the end of a three months' period we usually find that there is a very marked reduction in the hemoglobin and red count in many

of these patients, which climbs back to original levels at the end of a year.

When one considers the physical development of these individuals, based upon their ability to perform muscular exercises, their endurance and tissue tone, improvement was shown in all but five cases.

COMMENT

When one considers the allergic cripple from the standpoint of his physiology and development, one is confronted with a symptom complex differing with each child. A thorough understanding of this symptom complex offers an intelligent basis for the application of therapy. In all of our work we have used a crude extract of the adrenal cortex because experimental and clinical evidence shows it to be a physiologic stimulant which is an important adjunct in the treatment of the symptom complex.

This method of approach, we feel, offers a hope that the allergic cripple may be gradually rehabilitated.

SUMMARY

1. A crude extract of the adrenal cortex, in conjunction with epinephrin given orally, is an important adjunct in the treatment of asthma.

2. A summary of fifty cases of refractory asthma treated over a period of one year or more showed improvement in their allergic symptomatology in 84 per cent. Physical improvement in the same group was noted in 90 per cent.

3. The routine hematology and study of the blood chlorids apparently give little information as to the progress of the patient.

4. Six of the thirty-five boys in this group presented nondescent of one or both testes, all six of which showed descent under treatment.

5. Evidence of thyroid or genital disturbance was obtained in 74 per cent of the mothers of the patients.

6. Some forty of the fifty patients were taller than normal standards.

Box A.

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DISCUSSION

E. Kost Shelton, M. D. (921 Westwood Boulevard, Los Angeles).—The chief point of interest in Doctor Pottenger's paper lies, I believe, not so much in his rationalization of the allergic problem involved or what he professes to have accomplished by a new therapeutic approach, as in the approach itself.

Anyone interested in physiologic medicine cannot help being struck by the numerous disorders of unsolved etiology or those attributed to that obscure realm of somatic iniquity called constitutionality. Therefore, any rational approach directed toward elucidation of the problem of allergy in general, and asthma in particular, should not be ignored.

For a number of years certain findings in common between the allergic child and the non-allergic, but physically inferior child have attracted my interest. Others, too, particularly Todd, have pointed out the retarded physical development as shown by the roentgenogram in many allergic children. This could be explained in numerous instances by the sometimes necessarily inadequate diets. On the other hand, many children, who never even heard of an elimination diet, still present the findings common to an absorptive or an endocrine disorder.

In my ignorance, during the past ten years, not a few of such children were treated by the physiologic approach—namely, with thyroid, with adrenal cortex, with minerals, with vitamins or with preparations designed to enhance gastric absorption. In general, the results were not spectacular; but some of the children did get prompt and lasting relief from their allergic symptoms, particularly those where the thyroid factor appeared to be real instead of apparent.

While my experiences with adrenal cortex preparation in such conditions have been meager and the least satisfactory of any, I have never had the advantage of a fresh and unlimited supply of material that Doctor Pottenger enjoyed. Therefore, I am in no position to judge of its efficacy. My chief criticism of his work, and that which makes it so difficult to evaluate it, lies in the fact that he used diets and exercises and other hygienic measures concomitantly; any one or all of which things may have been good for the patient, but, when given together, they are not conducive to a scientific conclusion. Why should the mothers of 74 per cent of these children have thyroid or genital (menstrual?) disturbance? Why are 80 per cent taller than the average normal? Why should they all have had poor posture? What was the sex incidence? What was the maturation correlation with the chronological age? What part, after all, did the adrenal cortex per se have in the rehabilitation of these children, if they are actually rehabilitated? There is probably something very informative in these findings, but I fail to find the answer in Doctor Pottenger's paper.



Leland Hunnicutt, M. D. (98 North Madison Avenue, Pasadena).—The problem of maintaining proper elimination and water balance in the mucous membrane system is a challenge to all of us. Doctor Pottenger has done some unusual and well thought-out work. The more I see of his patients, the more I am convinced that the problem does not have a single answer, but many answers. He includes a very complete régime in the care of allergic individuals.

So that we may better understand the difficulty that is presented to the nose and throat man, let us look at the mucous membrane of the nose and bronchi in both the normal and the allergic individual. The first slide shows the normal turbinate with its fine eliminative mechanism of cilia, goblet cells and mucous glands. The allergic turbinate no longer has cilia, has many goblet cells and a stratified squamous epithelium. There is a marked increase in leucocytes of an eosinophilic type in an edamatous tissue. It may also be noted that there is an increase in the number of mucous and serous glands. The normal mucous membrane of the bronchial tubes has a thin ciliated epithelium and a few goblet cells. There are occasional nests of glands, and only a few cells in the sub-epithelial connective tissue. The allergic or asthmatic bronchus shows much material in the lumen, the epithelium is hyperplastic, many goblet cells are present, glands are hyperplastic, there is an increase in fluid content, and there is a marked cellular infiltration. It can now be seen that we have a problem of correcting a very abnormal tissue. If it were possible to prevent the chronic changes which you have seen, then we would not only have a symptomatic cure but a return to normal histology as well.

I wish to describe one case from the several dozen that I have sent to Doctor Pottenger for this régime outlined by him. This case is that of a boy eight years old, who has had allergic symptoms since he was about three years of age. The clinical history was that of being sensitive to certain foods which, upon their removal, would give benefit for about one month, when the congested nose and sneezing would return. At the age of 6½ years, Doctor Pottenger put him on a régime such as he has described, and at about the end of two months all of the symptoms had disappeared, to reappear only on rare occasions. There has been a general improvement in health and nervous make-up, corresponding to the freedom from impairment of nasal breathing at night. Examination of the nose now shows normal turbinates and an adequate space. The pharynx, which had previously been granular, is now smooth. This case is quite representative of those I have observed under this type of treatment.

The control of the water balance in the tissue is the all-important thing in mucous membrane allergy.

Treatment must be started early in the course of the disease, because if not, there will be permanent inflammatory changes.

A DYNAMIC APPROACH TO PULMONARY TUBERCULOSIS*†

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AND
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THE physician interested in pulmonary tuberculosis today has a much more definite approach to the problem of diagnosis, and a much wider scope with regard to treatment than was the case some years ago. This is particularly evident to anyone who can recall physical conditions in sanatoria of fifteen years ago, and their methods of handling patients with tuberculosis, compared with the equipment and technique of the modern tuberculosis institution today. The old, almost boarding-house type of care, has been replaced by something akin to, but not just the same as a modern hospital environment. This growth has been very gradual and has been necessitated by the increased technical demands made upon the physician, as well as the institution, by the present-day approach toward problems of diseases of the chest. We will try very briefly to trace these developments and to outline our methods of applying them. This does not attempt to be an exhaustive presentation, but is merely an approach from the clinical side to the practical problems that arise during the course of everyday work.

DIAGNOSIS

It was only some twenty years ago that most chest men of experience felt that everything to be learned about a chest could be gleaned from physical examination, together with routine clinical laboratory tests. It was felt that the use of the x-ray had but a small rôle in working out chest problems. The use of tuberculin at that time was believed by some pediatricians to have a limited scope in diagnosing tuberculosis in children, but carried little weight after infancy.

How different is the picture today! While there is still much confusion in some minds as to the value of tuberculin testing, in many places physicians are routinely testing their patients and following up positive reactions with some form of x-ray examination of the chest. In many hands the routine use of the fluoroscope to sort out those who have significant clinical lesions is quite satisfactory. Others depend upon x-ray films. The matter of availability and expense is important, but in our hands practically all of the early cases of pulmonary tuberculosis that we see are found through the routine examination of contacts by means of testing their skin reaction to an adequate dose of a proper tuberculin, and following the positive reactors by chest fluoroscopy.

The limitation of physical examination is well brought out in the following table,[1] which gives the findings in a study of 1,367 consecutive unselected cases of tuberculosis admitted to the Trudeau Sanatorium:

	Per Cent
Tubercle bacilli	61.5
X-ray	99.0+
Hemoptysis	33.5
Râles	68.5
Pleurisy	12.0

Most of these cases were advanced when first seen at the Sanatorium. Analyzing this table it will be seen that, even in these advanced cases, by means of physical examination alone in the hands of experts, only seven out of ten could be diagnosed; in other words, three out of ten would be missed as cases of pulmonary tuberculosis by using the stethoscope alone. This is essentially the experience of anyone who has carefully checked his physical examination by x-ray. By examination of their sputum alone, six out of ten cases could be diagnosed as having tuberculosis. Chest men who realize these limitations will not give a diagnosis of "no pulmonary pathology" without some form of adequate x-ray examination.

Furthermore, while a sputum examination will in six out of ten cases reveal the presence of tuberculosis, it does not tell what the patient's problem is in any sense of the word, because the reaction of the patient to his infection, the localization and extent of the tuberculosis, the type of lesion (whether exudative or fibrotic), and particularly whether or no cavitation is present, are very essential in outlining treatment.

TREATMENT

The education of the patient is extremely important and little can be accomplished without it. For this reason we insist that at least six weeks be spent under proper sanatorium conditions.

We hope that nothing in this presentation will be interpreted as minimizing the value of absolute general rest in the treatment of pulmonary tuberculosis. By this we mean absolute rest in bed, the patient never touching his feet to the ground. This is usually supplemented, if the lesion is unilateral, by postural rest, using boards under the mattress

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† Because of lack of space, Reports of Cases will appear in the reprints.

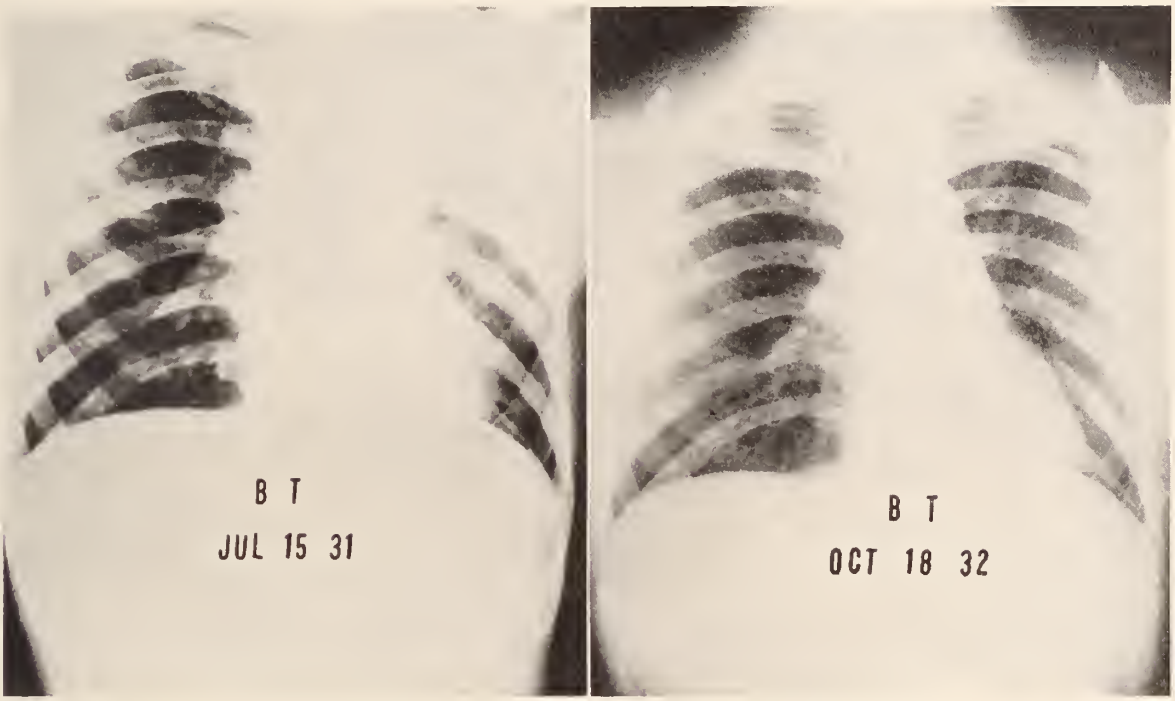


Fig. 1—Case 1.—Resolution of Pulmonary Tuberculosis by bed rest alone.

and with the patient lying twenty-three hours a day, at least, on a bolster on the involved side. This type of treatment may be sufficient for relatively early lesions of an exudative type. As a routine, we believe that this should usually be tried for a period of two months to see if the tuberculosis pathology can be influenced in the direction of resolution. We might at this point state that, in our approach toward this problem, we are not thinking in terms of symptoms as much as formerly, but more in terms of pathology. In other words, we frequently tell patients it is not so important how they feel—we are more interested in how they really are. What we are trying to emphasize to the patient is that merely because they have no fever, no cough, no sputum, does not necessarily mean that their problem, with regard to tuberculosis, is solved. The mechanical problem of the disease must always be taken into consideration. This brings us to the question of cavitation.

The statement of Bacmeister,[2] in 1925, that "of those patients who by x-ray show a cavity at least as large as a cherry, only 20 per cent were alive at the end of five years under any kind of treatment, unless during that time their cavity had been closed," has been found to be perfectly true. Other series,[3, 4] with different types of patients, show a 90 to 95 per cent mortality. A recent study by Wu and T'ang [5] on contralateral bronchial infection in pulmonary tuberculosis shows "in almost 90 per cent of instances a cavity existed in the primarily affected lung." We, therefore, know that the attempt to close a cavity in a patient with pulmonary tuberculosis must definitely be made, and it is for this reason that the various collapse procedures now described are important.

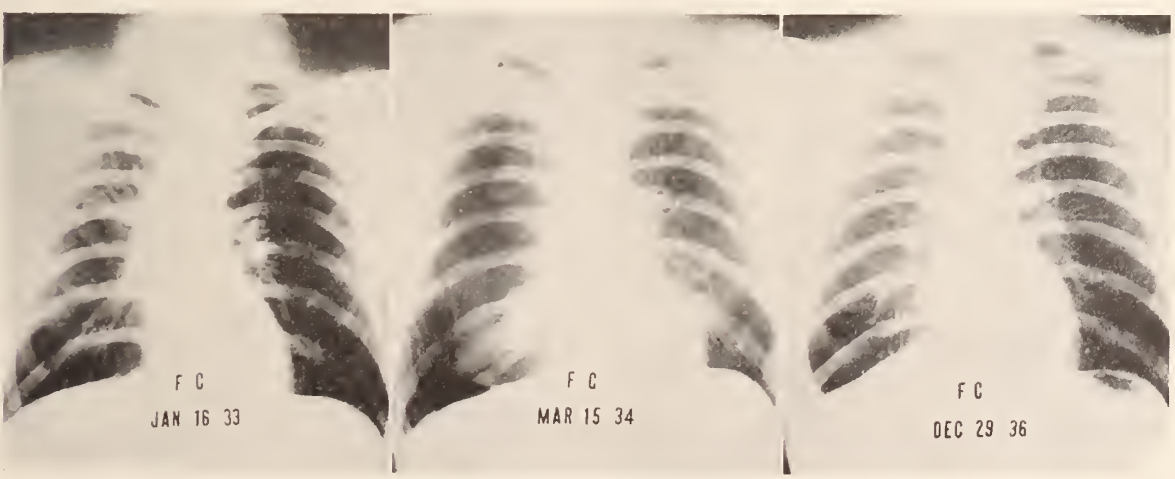


Fig. 2—Case 2.—Right artificial pneumothorax.

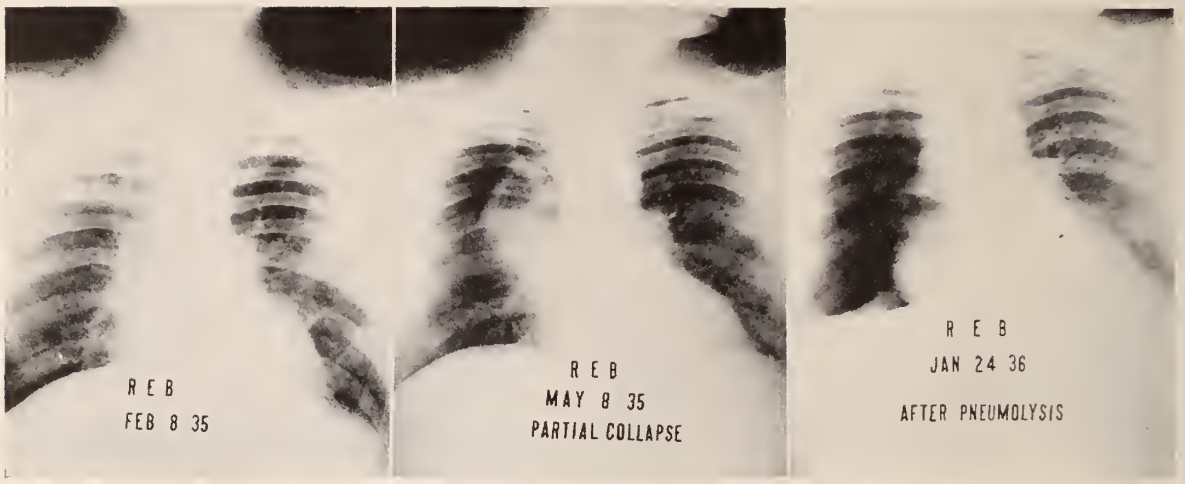


Fig. 3—Case 4.—Intrapleural pneumolysis.

Pneumothorax.—In medical practice in general, it is true that the simplest procedure effective is always the most practical and receives the widest use. This is certainly true in collapse therapy, and no other procedure should be attempted until artificial pneumothorax has been tried. There is no practical way of telling whether or no a cavity in a lung can be collapsed by the introduction of air into the pleural space until this has been actually tried, and all further collapse procedures are predicated upon the failure of an adequate collapse from pneumothorax alone. Pneumothorax is a comparatively simple procedure in the proper hands and, when accompanied by adequate fluoroscopic control, is very effective. The various tuberculosis sanatoria throughout the United States have some 75 per cent of their patients under collapse therapy, most of these receiving pneumothorax as the initial procedure.

Complications in pneumothorax are few but important. First, air embolus, the prevention of which is largely a matter of technique; second, pleural effusion, the incidence of which is high during the course of an artificial pneumothorax, but which in general plays no important rôle; third, in a small residue of cases, difficulty in expanding the lung after one feels an adequate collapse has been maintained for a sufficient period of time.

We measure the time at which the collapse becomes adequate from the closure of the cavity, as shown by x-ray plus disappearance of tubercle bacilli from the sputum, together with normal temperature and satisfactory body condition. We feel that most patients should be kept under adequate pneumothorax collapse for a period of not less than two and one-half years. In certain types of basal lesions and thick-walled, fibrotic apical cavities, or in some persons with nervous systems fundamentally inadequate which prevents their following reasonably closely a proper hygienic régime, the time of maintaining their pneumothorax should be extended.

Simultaneous bilateral pneumothorax is a perfectly feasible and proper procedure, and will usually account for from 7 to 10 per cent of all cases of pneumothorax. Where there is free pleural space, the continuance of this type of bilateral pneumothorax is not particularly difficult after it once becomes properly established. These patients may even return to a normal routine of life, still maintaining their bilateral pneumothorax.

Intrapleural Pneumolysis.—Jacobeus, who first popularized and made practical the cutting of adhesions which were preventing adequate collapse in pneumothorax, and the modification of this procedure by Unvericht and its early development by the Matsons of Portland, have contributed in a large measure to collapse therapy. In about one pneumothorax patient out of twenty, in our hands, does the attempt to cut these adhesions through the thoracoscope become necessary to establish adequate collapse of a cavity. This is a procedure without great risk, which gives excellent results under proper conditions, and which many times is of tremendous help.

Phrenic Nerve Operations. — In those cases where, because of adhesions, no adequate pleural space in which to establish an artificial pneumothorax can be found, the second simplest method of collapse, particularly in basal lesions, though it also applies to others, is an operation upon the phrenic nerve. Whereas formerly this nerve was isolated and evulsed, our present-day practice is to interrupt the nerve function by crushing. This gives a paralysis of the hemidiaphragm, lasting on the average of six months, and can be repeated several times if necessary. While the lung collapse obtained by this measure is very inadequate compared with that obtained by a good artificial pneumothorax, still it may be sufficient to solve the problem at hand and, if this is the case, nothing could be more effective. Collapse from phrenic nerve paralysis not being as adequate as that from an artificial pneumothorax, the patient is kept at absolute bed rest for a longer period of time. In contrast to bilateral pneumothorax, bilateral phrenic interruption seems hardly advisable on account of the marked dyspnea which usually ensues.

Pneumoperitoneum.—Since 1934 we [6] have been introducing air into the peritoneal cavity for the purpose of splinting the lungs. While this indirect compression is not as effective as pneumothorax, it seems to have a very definite place in those patients where the more hazardous surgical collapse

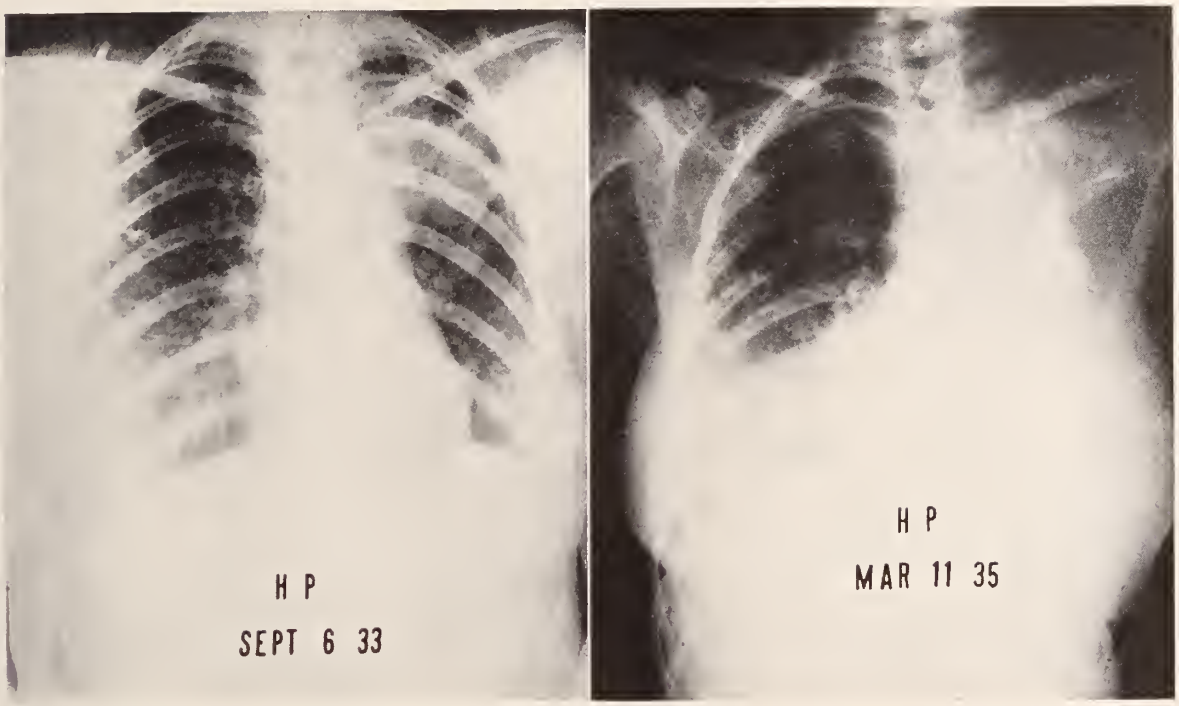


Fig. 4—Case 6. Thoracoplasty.

procedures are contraindicated by virtue of the exudative character or extent of the lesion, and the condition of the patient. While results are in no way spectacular, pneumoperitoneum seems to have found for itself in our work a definite place where no other collapse method applies, and may in itself be all that is necessary to provide the desired result. It may change an extensive bilateral exudative tuberculosis, with or without cavitation, into a simpler problem that is amenable to what may be called the more orthodox methods of collapse.

Pneumoperitoneum also supplements the rise of the diaphragm obtained by interruption of the phrenic nerve, and in general one can obtain twice the amount of collapse from a pneumoperitoneum, combined with a phrenic interruption, as can be obtained from either method alone. The hazards of pneumoperitoneum are even less than those of pneumothorax, and the complications we have seen so far in more than 4,000 refills on 140 different patients are not of such magnitude as to in any way preclude its use when indicated.

Apicolysis With Wax Plombage.—We agree entirely with Alexander [7] in the use of apicolysis with wax plombage. There is a definite group of comparatively small fibrotic cavities situated within the circle of the first rib, usually posteriorly, in patients who, because of their age and general condition, do not warrant thoracoplasty, in which this procedure is effective in closing and maintaining the closure of the cavity. We believe that bad results in some hands in the past have been because of poor selection of cases for plombage with lesions that were too exudative in type, or attempting to close cavities that were too large, or too low in the chest. When properly used, strictly according to indications, it has the virtue of giving adequate cavity closure and of being a comparatively simple procedure with very little attendant shock or discomfort to the patient.

Thoracoplasty.—While thoracoplasty is a much more formidable procedure, if we agree with Bacmeister's statement (which we believe to be correct), one has no choice but to institute this if the other measures described either have failed to close the cavity or for some reason are not indicated. We expect from thoracoplasty [8] roughly one-third of patients well, one-third no change, one-third worse. There are many series of cases that show an improvement on this figure, but by and large the average series agrees rather closely with these figures. Operative mortality has been reduced to about 10 per cent, and more recently (instead of the extensive procedures that were done sometimes in one, and latterly in two stages), by dividing the operation into multiple stages, removing two or, at the most, three ribs at a time with complete removal of the first rib and the transverse processes in the neighborhood of the cavity, effective results are steadily improving. The most recent presentation by Overholt [9] of Boston, with a dissection of the fascial bands that anchor the apex of the lung, is very appealing, and when lung surgeons in general master this technique, results should improve.

The increased use of the bronchoscope in studying thoracoplasty cases preoperatively,[10] and in recognizing by this means those who have involvement of the trachea and bronchi with ulcerative tuberculous lesions (which is a comparatively new and recent concept in clinical tuberculosis), will somewhat narrow our indications for thoracoplasty and, on the other hand, improve greatly our effective results.

There are many possibilities for combinations of these various procedures, which in any indi-

vidual case may be more effective than any one of them used alone. Many such combinations are in routine use, but going into this in detail would lead us too far afield at the present time.

Certain collapse procedures that at one time were in vogue, such as multiple intercostal neurectomy and section of the scaleni muscles, we mention in passing as not having been effective, at least in the hands of our surgeons, and we believe, in most places, have been abandoned as an effective method of pulmonary collapse.

SUMMARY

We can see, then, from this brief review that the practitioner of medicine who, in his office, uses upon his patients almost routinely the simple intradermal tuberculin test and follows through the positive reactors with some form of x-ray (either fluoroscopy or x-ray plates) will have the satisfaction of diagnosing many cases of active clinical pulmonary tuberculosis long before they are obvious by virtue of symptoms and well before there are any physical signs.

The diagnosis having been made, further procedures will then be determined by the type of lesion found, its extent in the lung, and the reaction on the patient, as well as the mechanics of the lesion; that is, its location and whether or no cavitation is present. The education of the patient is extremely important, and little can be accomplished without it. For this reason we insist that at least six weeks be spent under proper sanatorium conditions. But while there is no substitute for the proper hygienic training of the patient with pulmonary tuberculosis, this type of care alone, in at least 75 per cent of cases, does not seem to be adequate: in other words, unless the cavities present are closed, one cannot expect better than 20 per cent of patients to remain well over a period of five years. With adequate collapse procedures these figures can be practically reversed. The study of the mechanics in the chest is, therefore, imperative.

As time goes by, we have more definite indications for the use of the collapse procedures described above, and increased experience has widened the scope of their effective use. The knowledge we have regarding these methods must be definitely and promptly applied in order that our patients may not only remain well themselves, but so that they may not be a menace to their families and community by spreading their infection to those who otherwise would remain well.

CONCLUSION*

We have the definite means of diagnosing pulmonary tuberculosis early and accurately. The diagnosis having been made, there is much that one can do in the way of treatment for which, in most instances, we have definite indications and in which results can be definitely evaluated. From the standpoint of the patient, this means a more direct dynamic approach to his problem.

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* The authors would like to express their appreciation to Dr. Chesly H. Bush for his always helpful advice, and to Doctors Charles A. Dukes, Sumner Everingham and Paul Samson, the surgeons who have put these ideas into practical effect, as well as the many members of the hospital Resident Staff.

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DISCUSSION

Carl R. Howson, M. D. (701 Merritt Building, Los Angeles).—Doctor Trimble has very clearly and succinctly set forth the present status of the diagnosis and treatment of pulmonary tuberculosis.

Successful treatment depends on the physician's ability to think in terms of pathology, as Doctor Trimble well says. The sad experience of many patients who have been permitted activity as soon as their fever, cough, and expectoration disappeared has clearly shown the necessity of planning in accordance with pathology. When the inflammation has subsided to the degree that the patient is symptom-free while at rest, the condition of the lesion is comparable to that of a fracture when the swelling and pain have disappeared. The essential reparative process is the formation of fibroid tissue in the former instance, and osseous tissue in the latter. Until sufficient time has elapsed for these tissues to become firm enough to stand the strain resulting from activity, any such stress jeopardizes the entire situation. In tuberculous lesions this is usually a matter of months.

I am glad to note Doctor Trimble's recommendation for a reasonable trial of conservative measures before attempting collapse therapy. There is no doubt that strict enforcement of a rest regimen will accomplish the desired results in quite a high percentage of cases. When satisfactory progress in this direction is not made in a period of one to two months, one should not hesitate to have recourse to pneumothorax. This procedure has enabled us to restore to health a most gratifying proportion of our patients who would otherwise be doomed to an early death. Even simultaneous bilateral pneumothorax is now carried on with reasonable ease, and not infrequently patients pursue a normal life at full-time work while the bilateral collapse is maintained. Doctor Trimble's work with pneumoperitoneum is deserving of high commendation. He has done much to popularize a procedure which gives promise of being a major advance in treatment.

The future of the tuberculosis situation hinges largely on the problem of early diagnosis. The x-ray is the cornerstone of any program along this line. The fluoroscope is of great value in the detection of these early lesions, particularly under conditions which make it possible for the fluoroscopist to examine a large group at one time, thus being able to have his eyes thoroughly accommodated to the conditions of the fluoroscopic room. In ordinary work, however, where only one patient is examined at a time, the examiner usually has not the time to prepare his eyes as completely as is desirable. However, even under the most favorable conditions some of the early infiltrations are not visualized, and under the conditions just outlined infiltrations of moderate size are frequently missed. For this reason, the only satisfactory and safe method in clinical work is the securing of technically good films. If this is

done in every case in which there is any justification for an examination of the chest, many more early cases will be detected and our therapeutic results correspondingly improved.

Sidney J. Shipman, M.D. (490 Post Street, San Francisco).—In pointing out the chief differences between the concept of tuberculosis diagnosis and therapy of fifteen years ago and the concept of today, Doctor Trimble has rendered a distinct service. The wider use of tuberculin in the late 'teens and early adult life is undoubtedly justified at present, since it is becoming increasingly valuable, due to the diminishing incidence of tuberculous infection. As Doctor Trimble says, positive reactions deserve x-ray examinations for follow-up.

Trimble has also done well to emphasize the important points of bronchial tuberculosis, a common complication of pulmonary tuberculosis which has been unrecognized too often in the past. Fortunately, bronchial tuberculosis often manifests itself by certain physical signs and x-ray changes which can be recognized without special investigation. One must be on the alert for localized wheezing, areas of partial atelectasis, and the like.

Regarding the duration of compression by pneumothorax there may be some disagreement. Trimble states that two and one-half years is the minimum. Some other workers in this field prefer to be guided by the general condition of the patient at the time pneumothorax is abandoned, and by the extent of the lesion before pneumothorax was instituted, as well as by the type of work the patient intends to follow. In short, there are many factors which influence one in maintaining or discontinuing compression. I am doubtful about the advisability of making any hard-and-fast rule with regard to this point.

Doctor Trimble also remarks, apropos of pneumolysis, that it is "a procedure without great risk." The truth of this statement depends, of course, upon the operator. Unless one is very conservative, it is a procedure with, rather than without, great risk; for, when unwisely done, the resultant pleural effusions, thickened pleurae, and other complications bring about greater loss of function than would be suffered by the use of a well-chosen thoracoplasty.

Regarding thoracoplasty, Doctor Trimble is a little too conservative in the use of his statistics. Far better results are now obtained than are reflected in the one-third, one-third, one-third groups which he mentions, and it is likely that the results can be still further improved.

In the use of pneumoperitoneum, Doctor Trimble has been a pioneer, and too great credit cannot be given him for his excellent work in this field. He has impressed upon us the fact that a certain group of bilateral, apparently hopeless cases can be sufficiently improved by pneumoperitoneum so that they can stand other forms of therapy, and ultimately recover. This is no mean contribution to the therapy of pulmonary tuberculosis, and deserves much wider acceptance at the hands of those treating tuberculous patients than it has so far enjoyed.

Chesley Bush, M.D. (Arroyo Sanatorium, Livermore).—After all is said and done, the first defense in the widespread battle against tuberculosis is the medical profession. For this reason, every attempt should be made to bring tuberculosis to the attention of all physicians as frequently as possible. The possibility of tuberculosis should be ever in mind, and its presence eliminated as a routine.

Doctor Trimble brings out and emphasizes the remarkable change which has taken place in the field of tuberculosis. As infection with the tubercle bacillus diminishes, the importance of the tuberculin test increases as a diagnostic help. Improvement of the x-ray and the fluoroscopic screens enhances their importance. There was a time—not so long ago in the memory of many of us—when the finding of râles at an apex was considered early diagnosis. We know now the condition is usually the late manifestation of earlier trouble in the lung parenchyma below the clavicle. We go out now to find tuberculosis before symptoms are suspected, and before physical signs appear.

At the period in which we were seeking râles at an apex, we were treating tuberculosis as a problem of an individual. Now we are treating it as a problem of the family. The finding of one case in a family demands examination of the entire group. It is often difficult for the private physician to avoid the suggestion of commercialism in sending for the entire family, but he can use the assistance of a public health nurse to accomplish this if he appreciates the need. We also treat tuberculosis as a community problem; and more and more this phase is being emphasized.

The development of compression therapy and the forward progress of chest surgery have been astounding. Formerly the treatment of tuberculosis attracted the younger medical men very little. Now there is a waiting list of young men desiring to be chest surgeons. There is a tendency to repeat immediately in every clinic the daring performances of skilled surgeons working under the most ideal conditions. Too often this changes the "dynamic" system of approach to the "dynamite" system. There will be less of this, however, as definite indications and limitations are crystallized, due to longer experience, in chest surgery.

Let us not forget the emphasis made in this paper on bed rest and education. We must still regard tuberculosis as a general disease with focal manifestations; and bed rest is fundamental at the beginning. When an interne asks, "Why is nothing being done for this patient?" when the patient is in bed with good nursing care, we wonder if the pendulum has not swung to the full limit of its surgical arc. We find it necessary to instruct the interne to change his question, "Why is nothing being done, in addition?"

H. G. Trimble and B. H. Wardrip (closing).—We wish to thank the discussants for emphasizing and extending many of the points in the original paper.

It has been our observation that when two or more chest men of experience collaborate on the problem of any one individual patient, there is usually very little difference of opinion as to the proper method of approach, and which, if any, of the many procedures above outlined are to be used in the individual instance.

This means, of course, that as these procedures develop, each finds its true place, and definite therapeutic indications exist for its proper use.

GASTRIC ULCER: INDICATIONS FOR MEDICAL AND SURGICAL TREATMENT*

By William C. Boeck, M.D.
Los Angeles

Discussion *by Fred H. Kruse, M.D., San Francisco; William P. Kroger, M.D., Los Angeles; Philip Corr, M.D., Riverside.*

As the subject signifies, there are two methods of treating gastric ulcer, and for each there are definite indications. Our viewpoint on this question has gradually changed since 1909 from one which considered that all gastric ulcers should be treated surgically to that of today, which accords medical treatment more justifiable consideration.

TYPES OF GASTRIC ULCER

We speak of various types of gastric ulcer based, for the most part, upon clinical symptoms. They are: (1) acute perforating; (2) obstructing; (3) hemorrhagic; and (4) simple chronic perforating varieties. The first three are complications of the simple gastric ulcer, and will be discussed briefly because there is little disagreement as to the type of treatment indicated.

* Read before the General Medicine Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

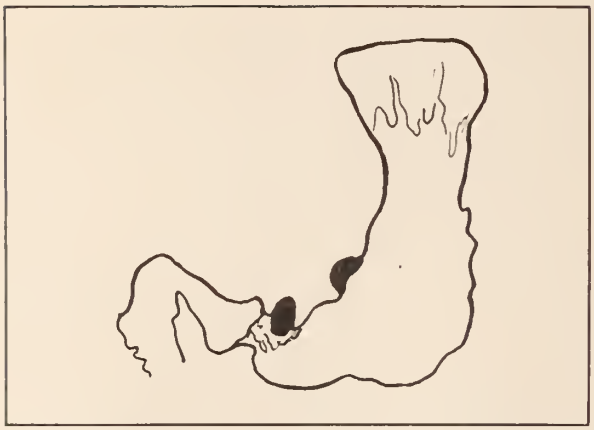


Fig. 1.—Multiple gastric ulcers in prepyloric and fundal areas on the lesser curvature.

ACUTE PERFORATING GASTRIC ULCER

As to acute perforating gastric ulcer, the treatment is always immediate surgical interference, and as to gastric ulcers causing obstruction either at the pylorus or in the fundus, due to an hourglass deformity, I believe a week of medical treatment, supportive in nature, to correct dehydration, tendency to alkalosis, etc., is indicated. If the obstruction still persists at the end of this time, then it is most likely due to cicatrization, and not spasm or edema, and surgery is indicated.

Next, what should be the treatment of hemorrhagic gastric ulcers? I believe it is generally agreed by both surgeons and internists that the treatment here is medical from the outset. Medical treatment may elect to starve these patients for forty-eight hours, as has been the usual custom, or, what I believe is better, to begin feeding them a soft bland diet at once after the method reported from Copenhagen by Muelengracht.[1]

In these cases, transfusions constitute an important factor in medical management. We must not be afraid to give 500 or even 1,000 cubic centimeters of whole blood at one time, if the blood loss has been great, because these larger amounts for transfusion do not precipitate new bleeding while they contribute greatly to the patient's support.

Recurrences of massive hemorrhage may happen within the year, and the ulcer may have healed only to recur, and each time with massive hemorrhage. These instances of recurring hemorrhagic gastric ulcers, I believe, should have such surgical treatment as will, if possible, remove the ulcer. The surgery, however, should not be done until the bleeding stops, as it does in nearly all of these cases.

SIMPLE CHRONIC PERFORATING GASTRIC ULCER

Let us now consider the treatment of the simple chronic perforating gastric ulcer. These ulcers occur posteriorly in over 95 per cent of the cases, along the lesser curvature. They may be small or large, single or double.

The treatment of this type of ulcer has undergone a great change since 1909. During the rapid advance of gastric surgery from 1909 on, the medical profession was persuaded to regard these lesions as "potentially malignant," and, therefore, surgical treatment of gastric ulcer was always indicated. This happened as a result of the surgical opinion expressed by such great surgeons as Mayo-Robson,[2] Moynihan,[3] Mayo,[4] and others, that cancer of the stomach begins as a gastric ulcer; and also as a result of the opinion of prominent pathologists that cancer developed from a previous ulcer in 71 per cent of the cases (Wilson and MacCarty[5]). Other pathological studies indicated that malignant changes were coexistent with inflammatory changes in 68 per cent of the specimens resected for gastric ulcer (MacCarty[6]).

But in the years to follow, this conception became changed, chiefly as a result of the follow-up studies conducted upon patients who had had a gastro-enterostomy performed upon them for gastric ulcer, but had not had the lesion removed. If it were true that malignant changes were present in two-thirds of all gastric ulcers, then these cases should have developed cancer in subsequent years; but Bamberger[7] found only twenty-two cases (2.2 per cent) out of 1,025 such gastro-enterostomized patients; Moynihan,[8] 3 per cent; Eiselberg,[9] 5 per cent; Balfour,[10] 6 per cent; Greenough and Joslin,[11] 1 per cent, and Sherren,[12] no cases of cancer in two hundred patients so operated.

But even this incidence of cancer in these cases is to be expected, partly from errors in diagnosis, provided cancer developed within one or two years after operation, and partly from natural causes if malignancy developed after the first or second year; for Bevan[13] has pointed out that, inasmuch as the frequency of the transition of ulcer of the stomach into cancer varies from 2 to 5 per cent, it is easily conceivable why from 2 to 5 per cent of ulcers should become malignant, since a similar percentage of individuals living to the ages of forty to sixty ordinarily develop cancer of the stomach as a natural course.

Medical opinion is inclined at present to no longer subscribe to the conception, originating twenty years ago, that these ulcers are potentially malignant; but, on the other hand, that at least 95 per cent of them are benign and remain so. MacCarty[6] is more conservative now, and estimates that only 10 to 15 per cent of gastric cancer may have come from gastric ulcer, while Hinton and Trubek[15] go so far as to state, in their recent paper, ". . . once a gastric ulcer, always a gastric ulcer . . ." As a result, the chief indication for prompt surgical treatment of gastric ulcer is eliminated and treatment becomes medical at the outset, provided we can make a reasonable differentiation between malignant ulcerous lesions and benign gastric ulcers.

DIAGNOSIS

Let us examine into the means of diagnosis which we have that help us to decide this issue.

Pathological diagnosis, the most reliable of our methods, is only applicable before surgery whenever there are accessible metastatic glands obtainable for biopsy, but this seldom occurs except in well-developed gastric cancer, when x-ray diagnosis is also competent. Obviously, it is of little help to us preoperatively.

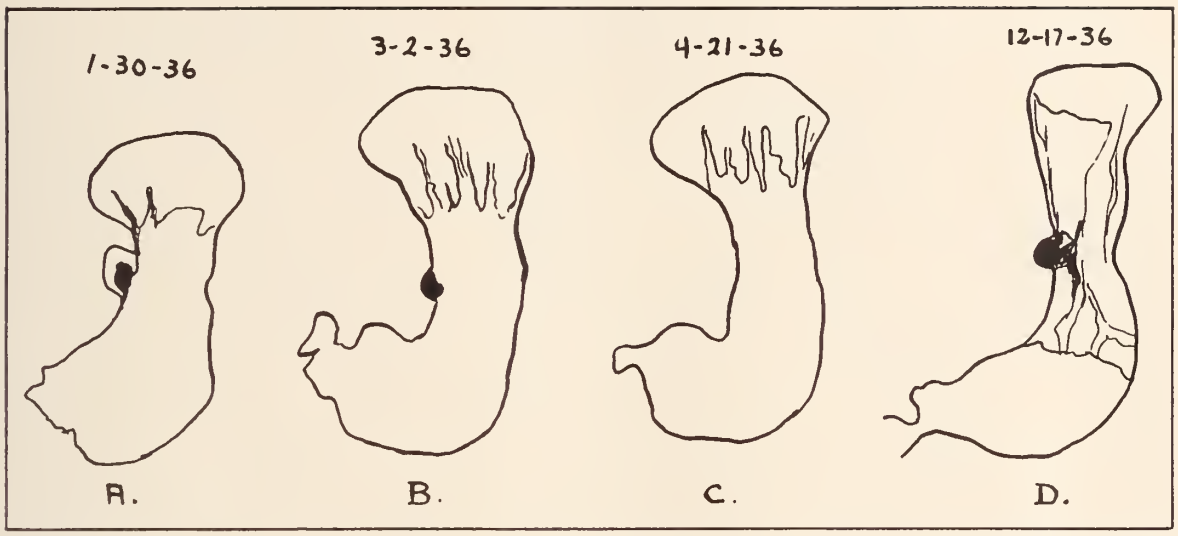


Fig. 2.—Progressive stages in the healing (a, b, c) of a gastric ulcer, and its recurrence (d) one year later; benign lesion.

X-ray examination is, perhaps, our best method of diagnosis before undergoing any operation. X-ray examination, together with pathological and therapeutical studies, has shown that 90 per cent of all ulcers on the lesser curvature proximal to the pylorus are benign ulcers, and 10 per cent of the ulcers in the prepyloric area are benign, while 90 per cent of such ulcerous lesions in this area are apt to be malignant. This is well illustrated by studies of Stewart[16] in England; Holmes and Hampton,[17] and Eusterman and Balfour[14] in the United States.

Gastroscopy is another method employed by some to diagnose the malignant or benign character of these gastric ulcers. Schindler[18] has written considerably about the characteristics of ulcerous gastric lesions, and feels it is possible to differentiate between malignant and benign lesions. I am of the opinion, however, that gastroscopy cannot help in the diagnosis of cases of early malignancy when pathologists, themselves, have difficulty with these lesions.

One case of mine illustrates the difficulty the gastroscopist has in differentiating malignant degeneration of a previously benign gastric ulcer.

REPORT OF CASE

The ulcer occurred in a man, sixty-one years of age. He had suffered from recent repeated hemorrhages during January, 1936, and the bleeding was only stopped after five transfusions. A large perforating ulcer, containing an air bubble, was present on the lesser curvature above the angle of the stomach. The patient had an achlorhydria. On medical management, this ulcer was almost healed in eight weeks, and had disappeared in twelve weeks. During the next eleven months the patient gained sixty pounds in weight and felt fine until the middle of December, 1936, when ulcer symptoms recurred, along with slight hemoptysis. X-ray showed a recurring gastric ulcer in the same location as before. A gastroscopic examination was performed by a trained gastroscopist, and malignant changes were reported. Operation was decided upon, and the lesion was excised. Pathological examination of serial sections failed, however, to reveal any evidence of malignancy, but only inflammatory changes. Much more reliable, after all, was the factor of location for 90 per cent of all such lesions in this location, are benign, and in this case a therapeutical test proved it once, and pathological examination, the second time.

Peritoneoscopy, another method of diagnosis, is not apt to be very useful in differentiating a malignant from a benign gastric ulcerous lesion unless metastasis occurs. Also, the size of an ulcerous lesion is not a good criterion upon which to decide its character (Alvarez and MacCarty[19]), because larger ulcers may be benign and small ones malignant. Likewise, our laboratory tests are of no help in deciding whether a gastric ulcer is malignant or benign, because the findings are common to both lesions. And while it is usually true that benign gastric ulcers give a longer history of trouble than malignant ulcerous lesions, yet the history is not a reliable criterion of diagnosis. The symptomatology also is not a reliable criterion of diagnosis because, in many cases, while it is suggestive of simple ulcer, it may also suggest malignancy on account of the symptoms having become progressively worse.

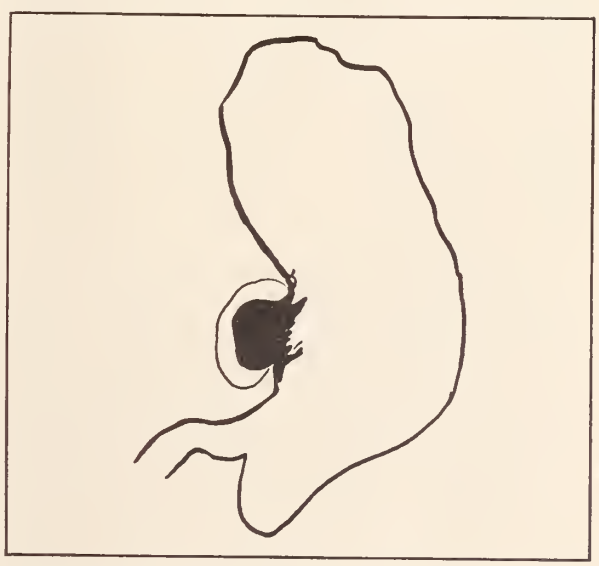


Fig. 3.—Large benign gastric ulcer; perforating and with air bubble.

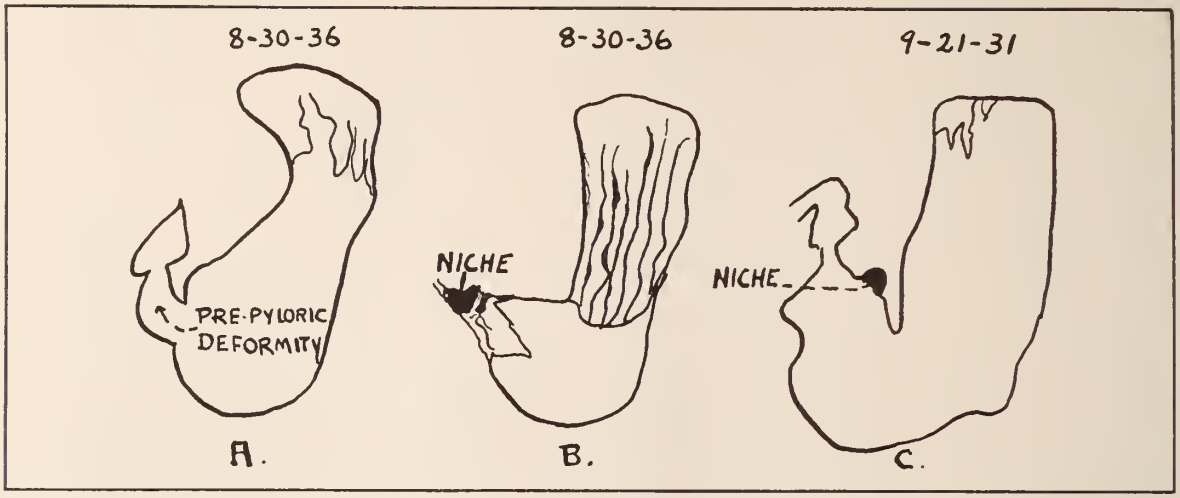


Fig. 4.—(a) Prepyloric spasm from malignant gastric ulcer. (b) Shows the niche, and (c) shows the prepyloric ulcer five years before.

PRESUMPTIVE DIAGNOSIS

We may conclude that before operation our methods of diagnosis—namely, laboratory, x-ray, gastroscopy, history, physical examination, and symptomatology—do not enable us to be certain whether the chronic gastric ulcerous lesion is benign or malignant. Of these methods, x-ray is probably the most important, since it determines the location; and then come the history, symptomatology, and gastroscopy as valuable aids to diagnosis. At best, however, the examination can only result in a presumptive diagnosis; and we are helpless except in one particular, *i. e.*, the "time factor."

TIME FACTOR

This time factor is most deserving of more consideration as a criterion of differentiation of malignant from benign ulcerous gastric lesions, for we have seen, from surgical follow-up studies, that were we to do nothing at all to the lesion, probably 95 to 98 per cent of them would prove to be benign, and 2 to 5 per cent malignant. Studies also show that when a given lesion is probably malignant, although it looks like a benign lesion, the symptoms and the lesion do not completely disappear with medical management. In other words, we must be willing to wait long enough for evidence of healing which indicates a lesion is benign, or failure to heal which indicates the lesion is probably malignant; and this evidence is usually obtainable in two to eight weeks.

SCHEME OF MEDICAL MANAGEMENT

In applying this time-factor criterion to the treatment of these gastric ulcers, some definite scheme of medical management is indicated at the outset, and it should embody the following principles:

1. All chronic gastric ulcers, regardless of situation, size, achlorhydria, melena, and history should have the benefit of medical treatment. This has been advocated by Jordan,[20] Lahey,[21] and Scott.[22]

2. Benign lesions will give evidence of healing by:

(*a*) Improvement or loss of symptoms within first or second week.

(*b*) Cessation of bleeding within second to third week.

(*c*) Diminution in size of ulcer crater by x-ray examination within second to fourth week.

(*d*) Continuous decrease or disappearance of ulcer crater within third to eighth week.

(*e*) Failure of symptoms and ulcer to disappear indicates probable malignancy.

I have seen fit in most cases in my own practice to conduct medical management for as long as eight weeks while looking for evidence of healing. Although this evidence of healing may occur within three weeks, it sometimes takes longer, so that one is often justified to wait, as advised by Jordan and Lahey and Scott, before asking for surgical intervention. Even when surgery is accomplished, the resected lesion may prove to be benign since old callous ulcers may resist healing, yet the patient has been given a fair chance on medical management.

One should exercise utmost vigilance in the case of prepyloric lesions, since the prepyloric area is the home of most malignant lesions. One may want to advise surgical intervention as early as the end of three weeks in those cases showing little or no healing, but often the same or more deformity of the stomach at the end of this time.

REPORT OF CASE

As an example, let me cite the case of a man thirty-five years of age, who had had medical management for an alleged duodenal ulcer over a period of four years, but with only transient periods of relief. My x-ray examination did not substantiate the diagnosis of a duodenal ulcer, but instead a prepyloric gastric ulcerous lesion was found associated with marked gastrospasm. Because of the failure of medical treatment, and because of the prepyloric location of the ulcer, surgery was advised and a resection was made. The gastric ulcer was 2½ by 4 centimeters, shallow, and was diagnosed carcinoma by two pathologists. No glandular metastasis was noted. No duodenal ulcer was present. The earlier x-rays, four years before, indicated a small gastric ulcer in this area, which was overlooked.

3. It is essential that, during this time of medical management, frequent x-ray examinations be made to observe if any decrease occurs in the size of the lesion. The criticism to be made of the conduct of most cases is that this important method of check-

ing progress is not made use of sufficiently. There should be an examination every two or three weeks, as a minimum, in the beginning of medical treatment, and subsequently at intervals of three to six months after healing, in order to learn of any recurrence.

4. Healing with recurrence is no criterion of the benign lesion becoming malignant; when ulcers recur, medical management at first is again indicated, and only when failure to heal has been demonstrated, is surgery advisable.

5. Medical management on an ambulatory ulcer diet (with prohibition of alcohol and smoking, if possible) should continue as long as the patient lives, to prevent any recurrence of the gastric ulcer in the same, or some other location.

6. The criteria of complete healing should be:

(*a*) Disappearance of symptoms.

(*b*) Disappearance of melena under strict control.

(*c*) Disappearance of ulcer niche by x-ray examination.

(*d*) Disappearance of ulcer by gastroscopic examination.

I believe gastroscopy has an important place as a check to the final disappearance of the lesion, since it answers the criticism of those who claim that an ulcer may have disappeared in the x-ray and still be present because its crater was filled with fibrin, mucus, or food matter, and was, therefore, not demonstrable. I do not feel, however, that gastroscopy need be routinely employed for this purpose, because subsequent x-ray examinations would prove whether or not the lesion was present.

IN CONCLUSION

In summary, may I state that surgical treatment is indicated immediately in cases of (1) acute perforated gastric ulcer, and (2) obstruction due to cicatricial pyloric or fundal stenosis. Furthermore, that medical treatment is indicated in all cases of (*a*) massive hemorrhage from gastric ulcer, and (*b*) in all cases of simple chronic perforating types of gastric ulcer for at least eight weeks, after which, if healing does not occur then, such appropriate surgical methods of treatment are indicated as will remove the lesion, and by as simple procedure as possible.

By employing the factor of time as a criterion, we shall give these ulcerous gastric lesions uniform consideration and arrive at a diagnosis of probable malignancy or benign ulcer by the most satisfactory method we possess at present. In this way, I believe our mortality from surgery (average 5 per cent) will still be less, since surgery will be done on fewer but deserving cases. We will have more satisfactory follow-up studies to help determine the incidence of cure from the removal of malignant ulcerous lesions. Anyone who has read the report of Cole [23] on "The Pathological Yardstick" cannot help being impressed with this necessity. I believe that the opinion of more than one pathologist is always desirable when malignancy is diagnosed.

May I conclude with a quotation from Lahey,[24] a foremost surgical authority:

> One not infrequently hears and reads that the way to improve our results of cancer of the stomach is to submit all gastric lesions to radical surgery, in order that a carcinoma may not be overlooked, and in order that malignant degeneration of gastric ulcer does not occur. This is, I believe, a wrong attitude, and were it employed on a large scale, the operative mortality would at least approximate, if not surpass, the percentage of gastric carcinomas which are missed under the plan of preoperative segregation by frequent roentgen-ray observation while under a short period of hospital observation under medical management.

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DISCUSSION

Fred H. Kruse, M.D. (384 Post Street, San Francisco).—While I must praise Doctor Boeck's general conclusions, I would be inclined to make his opening paragraph, in reference to the treatment of gastric ulcer, much stronger in favor of persistent medical management by saying that our viewpoint today holds the problem essentially a medical one, and that only intractability, or other more limited considerations, render surgical treatment justifiable.

Acute perforation is one of these undoubtedly; and the prepyloric ulcer that is not readily controlled, or that does not indicate healing, is too dangerously located to encourage prolonged temporizing.

On the other hand, I would be inclined to give the apparent obstructive lesions, even an hour-glass deformity, more time under medical treatment, a part of which might be directed toward mechanical relief, by regularly emptying the stomach by tube, in an endeavor to ascertain whether the viscus might not regain compensation. Emery has questioned actual cicatrization in most of these lesions, and emphasizes the need of more prolonged treatment in relieving the real underlying factors of spasm, edema, and fibrosis.

I quite agree with Doctor Boeck's statements about hemorrhage in gastric ulcer, especially recurrent, massive hemorrhage. In this condition it is well to remember that an enormous toxic destruction of protein takes place after such bleeding with an elevation of the blood urea and nonprotein nitrogen, which produces great dehydration and a state approaching uremia; and unless this condition is corrected leads to death from uremia. Especially, for that reason alone, surgery is best deferred, if medical control is at all possible.

In respect to the simple, chronic perforating gastric ulcer, intractability or some one of the complications that render it nonamenable to medical treatment have been my chief reasons for resorting to surgery, and not so much the fear of malignancy. I am glad to hear that Doctor Boeck does not feel that the size of the crater is an arbitrary indicator of the probability of malignant degeneration.

In considering the doubtful benign or malignant gastric lesion, I highly commend the procedure recommended by Doctor Boeck under time factor, only I have called it the therapeutic test. In applying this test of treatment to such a lesion, to be satisfactory we should insist upon absolute relief of symptoms in a few days, and conclusive evidence of recession or disappearance by x-ray in several weeks.

What about the degree of acidity?

I still believe that a proper gastric analysis tells us a lot about the doubtful lesion.

True, in 10 to 15 per cent of gastric cancers have a normal or high acidity, and 10 to 15 per cent of peptic ulcers have subnormal or anacidity.

In doubtful cases, instead of the usual Ewald meal, it may be best to try a carefully controlled gastric analysis, as described by Bloomfield and recently by Cranston Holman: injecting histamin subcutaneously, followed by continuous aspiration for thirty minutes, measuring the volume of secretion and height of acidity in three ten-minute periods.

It has been found that practically all persons with gastric and duodenal ulcer have high acidity and large secretory volume. No single finding is infallible, but a lesion in the stomach associated with a low or absent gastric acidity is one that makes operative intervention advisable —if there has been an accurate gastric analysis.

Obviously, a small percentage of gastric lesions defy all the means now available for the correct diagnosis, including actual exploration, and thus proper treatment remains in doubt.

William P. Kroger, M.D. (1930 Wilshire Boulevard, Los Angeles).—The last decade has brought the surgeon and internist more and more in accord in their thoughts regarding the treatment of all peptic ulcers. The days are not far gone when the surgeon viewed with alarm the delay of the internist in bringing these patients to operation, and the internist viewed with alarm the apparent overalacrity with which the surgeon operated upon such patients.

Time and experience have softened such dogmatism, and we now agree upon essential points.

In the main we have no points of difference with Doctor Boeck's program. We have felt, for some years, the need of a greater recognition and practice of a regimen such as has been outlined, and it is only by following such a program that much needless surgery will be eliminated.

The plan is simple, and is backed by facts. As Doctor Boeck has shown, when 90 per cent of gastric ulcers found proximal to the pylorus are benign, it is imposing no great danger upon a patient to delay eight weeks for a therapeutic test which will differentiate between a malignant or a benign lesion. We heartily endorse this procedure, and hope that it will be generally accepted and followed.



Philip Corr, M.D. (Mission Inn Rotunda, Riverside). The subject under discussion is that of gastric and not duodenal ulcer.

This distinction is important because of the different problems involved. When considering duodenal ulcer there is no concern as to whether or not the ulcer is carcinomatous. With a gastric ulcer one must always give the matter of cancer consideration, no matter on what side of the argument one is on concerning whether or not gastric ulcers become malignant. The chief concern, from what Doctor Boeck has told us, is not whether the ulcer will become malignant, but whether it is malignant now.

In spite of my respect for the time-honored history and physical examination, one must concede first importance to expertly conducted fluoroscopic and x-ray examinations in the differential diagnosis of peptic ulcer. Second place should go to the gastric analysis. Gastroscopy promises to give some help in expert hands. Only occasionally should it be needed to help solve the problem of malignancy vs. gastric ulcer. As yet we hesitate to rely on it completely. If peritoneoscopy must be resorted to in order to make the diagnosis, it seems to me that it would be safer to settle the question more definitely by more inclusive surgical procedures. It is hardly necessary to repeat that with all the available evidence possible in certain cases of gastric lesions it is impossible for even the most competent to determine the matter of malignancy preoperatively.

In general, medical measures for the uncomplicated cases of gastric ulcer should be relied upon, but where there still remains a reasonable doubt concerning malignancy, surgery should be advised. After all, surgery often is a great help in the treatment of nonmalignant gastric ulcer.

In the simple gastric ulcer cases where the coöperation of the patient cannot be obtained, surgery will be considered. Perhaps it will be considered too quickly by ambitious surgeons and unresourceful physicians. One should recall that, while success may follow their dramatic efforts, recurrent ulcers or gastrojejunal ulcers may require even more careful medical management than would have been needed preoperatively.

If Hippocrates were faced with the modern problems of gastric ulcer, so competently presented in this paper, he would derive further satisfaction in contemplating his philosophical first aphorism that, "Life is short, and the Art long; the occasion fleeting; experience fallacious and judgment difficult. The physician must not only be prepared to do what is right himself, but also make the patient, the attendants, and the externals coöperate."

WATER EXCHANGE IN SURGICAL CASES*

By Donald A. Charnock, M.D.
Los Angeles

Discussion *by Carl Rusche, M.D., Hollywood; Clark M. Johnson, M.D., San Francisco; Jay J. Crane, M.D., Los Angeles.*

UNDER normal conditions there exists, in the body, an adjustment between the intake and output of water which results in the maintenance of the water content at a fairly constant level. In conditions of health an individual automatically cares for his fluid needs through response to hunger and thirst. During illness the water supply must frequently be governed by the physician.

PLACE OF WATER IN THE BODY

Next to oxygen, water is the most important constituent of the body. It represents 70 per cent of the body weight. It is essential in the physiological processes of cellular metabolism, and is the chief vehicle for the elimination of waste products and for the dissipation of heat. In starvation an animal can lose 40 per cent of its body weight, including practically all of its glycogen and fat, and half of its body protein, and still live; whereas the loss of 10 per cent of the water content of the body results in serious disorders, and the loss of 20 per cent results in death.[14]

HOW STORED

Water is stored in the body as interstitial and intracellular fluid. The former is present as isotonic saline solution. In this form it can be transported by the vascular fluid and adapted to the various needs of the body. The intracellular water is present in chemical combinations as water of hydration, or in the liquid phase of colloidal structures. As such it is not available for instant use.

HOW INTERCHANGED

The interchange between the blood and the other fluid groups depends upon osmosis, the gradient in either direction shifts delicately in response to the concentration of solids within the fluids. In dehydration it is the interstitial reservoir that sustains the volume of the blood plasma. Conversely, with an excess accumulation of fluids, the edema which may develop is localized within this compartment, with the result that the blood plasma remains undiluted. The vascular and interstitial fluids are practically alike chemically, but both differ from the intracellular fluid. This may explain why the intracellular fluid is not easily available to bolster a depleted plasma volume.[9]

SOURCES OF WATER IN THE BODY

Water becomes available to the body from the fluids and food. It is eliminated by the urine and stool, and as insensible water by way of the lungs and skin. More water is obtained from solid food than is generally recognized. The first contribution comes from the actual water content. The second

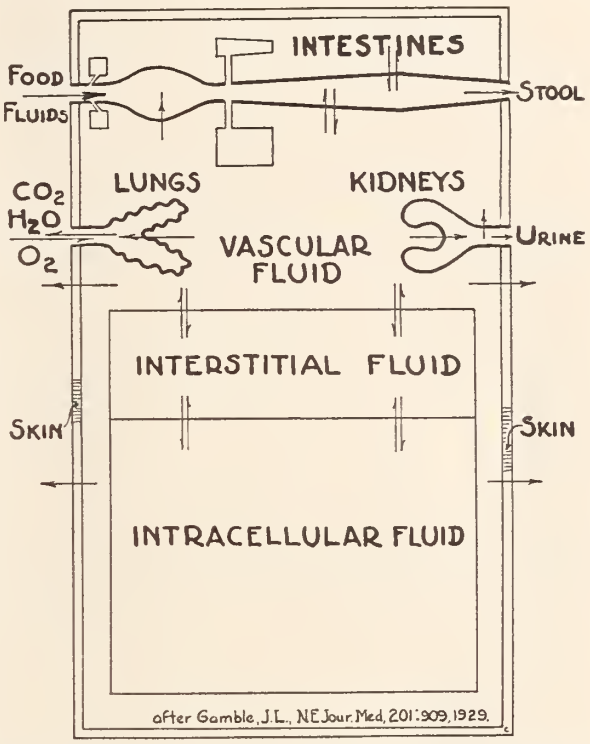


Chart 1.—A graphic representation of the body fluids together with an indication of the routes of intake and outgo.

contribution occurs during metabolism. This may be illustrated by the simple equation of the oxidation of glucose.

$$C_6H_{12}O_6 + 6O_2 = 6CO_2 + 6H_2O$$

In the estimation of the intake, obvious fluids can easily be measured. The water content of the food may be obtained from prepared tables, or actually determined by evaporating sample diets. Calculation of the water of oxidation depends upon a knowledge of the composition of the food. The caloric values are multiplied by the amount of water the foodstuffs are known to give. Where the caloric composition of the food utilized is unknown (and this generally obtains in sick patients), the metabolic mixture may be calculated, utilizing the procedure devised by Newburgh and his associates.[15]

The water content and water of oxidation of the diet has been found to amount to about 90 per cent of the total weight of the food.[3] For general considerations, the total food weight may be considered as water. The fluid drunk, plus the weight of the food eaten, equals the water intake. In the case of the sick patient who eats no food, the oxidation of the body tissue will liberate some water. It is rarely more than 500 cubic centimeters daily, and

Table 1.—*Water Content of Food*

Food Product	Water Formed Per Gram
Protein	0.4 gram
Carbohydrates (average)	0.6 gram
Fat	1.07 grams

* Read before the Urology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

may be disregarded unless great accuracy requires its calculation.

WATER NEEDS OF THE BODY

In estimating the water needs, the first call on the body fluids goes to supply the insensible water lost by way of the lungs and skin. The determination of this requires weighing the patient daily and calculation of the food value utilized. Newburgh and Wiley[12] have found, by very careful studies, that normal adults eliminate from 1,000 to 1,500 cubic centimeters daily as insensible water. Extending these studies to surgical patients, Coller and Maddocks[2] showed that the unusual heat production and active perspiration attendant upon surgical procedures may easily increase this to 2,500 cubic centimeters or over. In general, for sick surgical patients insensible water can safely be estimated at two liters a day. This large water loss is not considered if water balance is measured as the relationship of fluids drunk to urine passed as is done by the intake and output method. This will explain why patients receiving supposedly adequate amounts of water will exhibit the symptoms of dehydration.

The second fluid need is for sufficient water to insure adequate renal elimination. An average of 35 grams is a fair estimate of the urinary solids passed daily. The volume of water necessary to carry off this amount depends upon the concentrating ability of the kidneys. If the kidneys possess the ability to concentrate urine to 1.030, five hundred cubic centimeters will suffice. In kidneys only able to concentrate urine to 1.010 the amount of water necessary is increased to 1,500 cubic centimeters. To insure complete renal elimination without taxing the kidneys to their maximum, 1,000 to 1,500 cubic centimeters of water should be available. In the inadequate or infected urinary tract more than this is often desirable.[10]

For stool elimination rarely more than 200 cubic centimeters is lost daily. Unusual diarrhea must be added to the total output.

To these figures any abnormal loss of fluid must be added. This includes blood loss, quantity of vomitus, loss of fluids from drainage, from sputum, and from burned areas.

ESTIMATION OF DAILY WATER NEED

In tabulating the daily water need, the necessary amount reaches between 2,500 and 3,500 cubic centimeters in order to maintain an adequate fluid balance. To compensate for this output, the patient must either take fluids and food by mouth, or derive the water from the body tissues. The alternative is met by parenteral therapy.

WATER, FOOD, AND CHEMICAL NEEDS OF SICK PERSONS

One of the important advances in modern medicine is the ability to supply sick patients with water, food, and necessary chemicals when their normal digestion is disturbed. Opinions may differ as to choice of fluids given, but there can be no objection to the premise that the patient should receive as nearly as possible what is required to maintain a normal fluid and chemical balance.

WATER NEEDS OF POSTOPERATIVE PATIENTS

The most common need of postoperative patients is for water. This may be given in a variety of solutions, the most convenient being isotonic dextrose solution, physiological salt solution, and Ringer's solution. Dextrose may be dissolved in either of the saline solutions or in distilled water. In general, it is good practice in all dehydrated cases to give dextrose solution. The dextrose is quickly oxidized, thus releasing the water. Four calories are obtained for every gram used which helps prevent ketosis and replenish the supply of glycogen in the liver. The optimum range of concentration for dextrose solution lies between three and six per cent. Five per cent dextrose is isotonic with the blood.[7,16]

WATER NEEDS IN DEHYDRATED PATIENTS

The most critical water need is present in the patient entering the hospital in a dehydrated condition. Here the clinical signs may be evident, but as yet there is no adequate quantitative test to indicate the degree of dehydration. The blood picture may show a concentration of the plasma by the presence of a polycythemia. The hematocrit percentage may be increased.[4] Knowing that the water available for renal exchange is decreased in such cases, Coller and Maddock dehydrated normal individuals to a point where the classical clinical symptoms were present. There was a rise in the nonprotein-nitrogen of the blood which paralleled the weight loss. The use of blood nitrogen retention values as an indication of dehydration is evidenced by these experiments. An increased nonprotein-nitrogen, which drops when adequate fluids are given, signifies dehydration rather than urinary retention.

From these studies the investigators were able to demonstrate that 6 per cent of the body weight in water was necessary to restore a dehydrated individual to normal. This, of course, in addition to the daily needs.

Dehydration may progress to a point where anuria results, as the water necessary for vaporization takes precedence over the water available for urinary exchange. Anuria, or diminished secretion of urine following surgery, is generally directly related to insufficient fluids.[1]

RÔLE OF THE ELECTROLYTES

Second only in importance to water in the blood and interstitial fluid are the electrolytes. An elaborate mechanism exists to maintain these chemicals at a constant level. Nevertheless, loss does occur, especially following profuse emesis, copious diarrhea, heavy perspiration or extensive exudations. In these cases both the sodium and chlorid ions are lost. The degree may be measured by an estimation of the blood chlorids and CO_2 combining power. These two electrolytes are lost in nearly enough equal concentration to allow of either

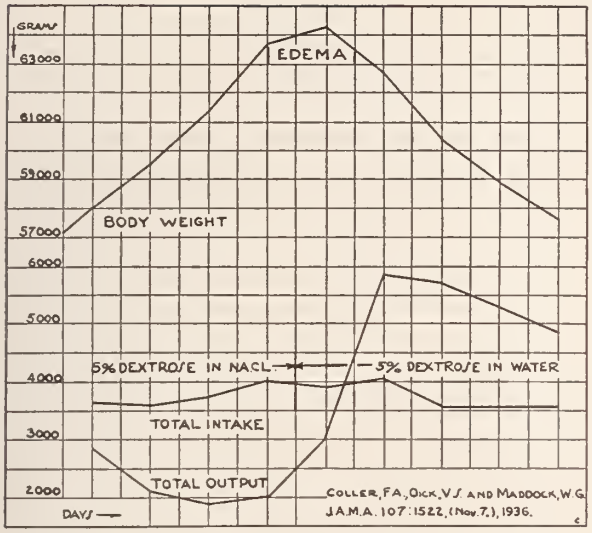


Chart 2.—Demonstration of the production of edema with administration of saline solution and the subsequent disappearance of the edema when the solution is changed to simple dextrose.

NAME _____ AGE ____ WT ____ DATE	WATER BALANCE CHART						
WATER DRUNK							
WT. OF FOOD IN GRAMS							
PARENTERAL FLUIDS							
INTAKE THRU TUBES NASAL, RECTAL, ETC.							
TOTAL INTAKE							
WATER BALANCE							
TOTAL OUTPUT							
OUTPUT THRU TUBES NASAL, RECTAL, ETC.							
STOOL (AV. DRY 200)							
SP. GV. URINE / EDEMA							
URINE OUTPUT							
UNUSUAL LOSS VOMITUS SPUTUM, ETC.							
INSENSIBLE WATER SKIN DRY 1000 MOUT 1500 WET 2000 DRIPPING 2500							
BODY TEMP / ROOM							

Chart 3.—A water balance chart which requires no calculation. Arbitrary values are used for the ordinarily calculated amounts. Specific gravity of urine and temperature figures are given for completeness only. They are put in an oblique area to guard against their being added in the totals.

physiological saline or Ringer's solution being used for therapy. The value of saline in cases of intestinal obstruction has been conclusively demonstrated.[8,13] In administering fluids to compensate for vomiting, it may be remembered that the saline content of emesis is about equal to that in normal saline solution.

Dextrose can be given for its caloric value in hypertonic solutions, but it is rarely advisable to exceed 10 per cent. Above this the dextrose is not usually completely oxidized, and its excretion by the kidneys requires water from the body reservoir. Metabolic balance cannot be maintained by dextrose alone. A drop in the plasma proteins can be artificially replaced only by transfusions of whole blood.

EXCESSIVE USE OF SALINE SOLUTION

The continued use of saline solution above its physiologic needs results in the appearance of edema. Coller and Maddock have demonstrated that sick patients on continued saline and Ringer's solutions developed edema, while those given simple dextrose solution often did not.[5]

The appearance of edema indicates a drop of the plasma proteins below the critical level, and an accumulation of sodium ion rather than the chlorid ion.[6] This necessitates the discontinuance of saline solutions. When these cases are still in need of augmented fluids, simple dextrose solution will maintain the fluid balance and often correct the edema. As the glucose is oxidized, the excess salt in the tissue is taken up by the water.

INTRAVENOUS THERAPY

The optimum rate of flow in intravenous therapy is 500 cubic centimeters per hour. This will result in practically no reactions. At this rate, 5 per cent dextrose is completely burned. The temperature of the solution is not so important. It is well to place needles so that sudden movements of the limbs do not result in a puncture of the vessel with an extravasation.

The tendency today is away from subcutaneous injections, because of the pain attendant upon the stretching of the tissues. Where no veins are available and fluids must be given the addition of 10 to 15 cubic centimeters of one per cent novocain to one liter of solution, will greatly reduce the pain during administration.

The use of intravenous fluids in cardiac cases with decompensation is contraindicated, but there is no direct experimental evidence to indicate that a compensated heart is ever damaged or embarrassed by solutions given at a rate of 500 cubic centimeters per hour.[11]

The diabetic case need not suffer from lack of fluids. Dextrose given can be balanced by insulin. Dosage is variable and depends upon the patient's degree of ketosis and level of dehydration.

IN CONCLUSION

The purpose of this paper is not to advocate the use of more intravenous fluids. These should be given only in such quantities as are indicated. In order to facilitate the keeping of an adequate intake and output record, a simple chart has been devised which I submit for your consideration.

The necessity for calculations has been eliminated by the use of values derived from the careful researches of Newburgh and his collaborators,[12,15] and adapted to surgical conditions by the work of Coller and Maddocks.[2,3,4,11] Familiarity with all the factors of water exchange will result in better progress of our surgical cases.

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DISCUSSION

Carl Rusche, M.D. (906 Taft Building, Hollywood).—When one considers the important part that water plays in the body, that it represents at least 70 per cent of the body weight, that the loss of 10 per cent of the water content of the body results in serious disorders, and that the loss of 20 per cent results in death, one immediately realizes the value of a discussion of water balance in surgical cases.

Possibly it is because of our lack of a thorough understanding of the subject and the remarkable accessibility of various intravenous solutions that we overload surgical patients with both fluids and salts. Frequently an edema develops. This is usually due to an overadministration of chlorids; however, edema will subside if the chlorids are discontinued and glucose in distilled water is administered. The loss of water through the skin and lungs is considerable, especially in patients with fever, and this is seldom accounted for in the surgical case. Particularly is this true with our present method of charting intake and output of fluids.

Doctor Charnock's chart will aid materially in keeping a more exact record. The plasma proteins which are lost in large amounts along with the chlorids in draining wounds should be replaced. Blood transfusion is the best method to replace plasma proteins.

It is an established fact that people working in high temperatures must drink water containing a large amount of salt to avoid heat strokes.

Valuable information has been received from the officers at Boulder Dam and those administering hyperpyrexia regarding water exchange and salts in the body.

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Clark M. Johnson, M.D. (384 Post Street, San Francisco).—The amount and type of fluids that should be administered to a sick patient is often the most debated question among a group of physicians attending the same individual. Doctor Charnock's discussion should be carefully read and considered by every doctor. He has reminded us of physiological fluid losses which we often forget. Wisely, he has intimated that there is no rule for the individual case, and no one test which will indicate just what a patient's fluid balance may be from day to day. He has offered proof that we may overload one patient with moderate amounts of fluid and, on the other hand, fail to supply the relatively enormous quantities that may be required by another. Each sick patient is an individual problem. Fortunately, there is a fairly large margin of safety in both directions. The two questions which are most often discussed are, first, how much fluid is necessary to insure proper renal function; and, second, how much fluid can the circulation stand. In the first instance, there are relatively few who do not realize that the renal burden is lightened by a large amount of fluid and that when there is renal damage fluids are especially essential, the damaged kidney being unable to concentrate and excrete the waste products. The second question relative to the possibility of overloading the cardiovascular system may require constant vigilance and expert clinical judgment. Undoubtedly, the circulation can be embarrassed by too much or too rapidly given intravenous solutions. I believe it is quite difficult to overload the heart with subcutaneous solutions, and that this is often the best method of administration where there is any question about whether the individual is receiving enough water. In fact, I believe that it is a good and safe clinical test. When intracellular salt solution properly given is not quickly picked up, it means either that the cardiovascular system is incompetent or that there is no need for additional fluids. It should not be difficult to distinguish clinically which factor is responsible. Occasionally the urinary output may be very scant in spite of a continued high fluid intake, and with no evidence of gross loss of fluids by the skin or bowel. In such cases there may be considerable fluid stored in the tissue without demonstrable edema. If it is undesirable to further increase the fluid intake, the output may be immediately improved by the intravenous injection of from 50 to 100 cubic centimeters of 50 per cent sucrose. Lacking, as we do, a clinical or laboratory test to guide us in the important question of total fluids required, we should pay more attention to the bedside examination. The condition of the tongue, the breath, the feel of the skin are important. In postoperative or septic patients confined to bed, early edema occurs most often on the back and not the ankles. When large amounts of fluids must be given over a long period of time, the heart, the blood pressure, and particularly the lungs, must be frequently checked. In the aged, one of the first and most serious signs of overloading is increased moisture in the lungs. Doctor Charnock's charts should be useful and prevent us from committing gross errors in either direction by making us more water-conscious.

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Jay J. Crane, M.D. (1921 Wilshire Boulevard, Los Angeles).—Doctor Charnock's paper is very timely because of the increased tendency today to use intravenous medication whenever possible, and intravenous solutions quite routinely after operative procedures.

Some patients, it is true, become dehydrated after surgery and should have more fluids given, either under the skin or preferably in the vein. On the other hand, there are many patients who are literally flooded with intravenous solutions and whose blood chlorids many times reach a level high above normal.

No surgeon wants to overtax a patient's ability to excrete an overwhelming large amount of unnecessary fluid, nor does he wish to withhold fluids when they are needed, but to estimate accurately what is needed and record it so that someone else can interpret at a glance what is being done, is another thing.

The purpose of Doctor Charnock's paper is not to advocate the use of more intravenous fluids, but to offer a simplified chart to ascertain the amount of fluid which is necessary to maintain a normal balance between the total output and the intake; and for this contribution I know we are all very thankful, for certainly in the past fluids have been given rather haphazardly.

SPECIFIC SENSITIZATION IN NONSPECIFIC URETHRITIS*

By James Steinberg, M.D.
Los Angeles

Discussion *by Louis Clive Jacobs, M. D., San Francisco; Robert V. Day, M. D., Los Angeles; Burnett W. Wright, M. D., Los Angeles.*

MUCH has been written, and considerable discussion has arisen concerning the etiology, course, and treatment of nonspecific urethritis. For years, it has been one of the most annoyingly persistent conditions confronting the clinician.

Certain previously unexplainable peculiarities have been observed which have materially differed from gonorrheal urethritis. Among these are the irregularity of the discharge from day to day regardless of the intensity of local treatment, the absence of chronicity, spontaneous recovery without treatment, frequent unexplainable recurrences and different types of discharge, such as purulent or mucoid.

The usual well-known remedies of prostatic massage, urethral irrigations, injections, instillations, and dilatations have in most instances not affected the condition in the simple uncomplicated types.

In the past it has been noticed that most of the cases have shown urethral discharge for two or three days, with a recession for one or two days and then an exacerbation of the discharge without regard to the regularity or even abstinence from local treatment. Many patients have recovered and the discharge has disappeared just as suddenly and unaccountably as it appeared in the first place, only to reappear later in from six months to a year or more without any apparent reason.

A typical competent observation on the phenomena of nonspecific urethritis is made by Barbillion[1] in the *Journal D'Urologie* of September, 1932, who says in part: "In spite of their stubborn nature and frequent recurrences, they do not seem to become chronic."

ETIOLOGIC FACTORS

These and other peculiarities led us to the belief that there were factors of importance in the etiology which had not been discovered, with the result that from certain observations in a comprehensive series of cases, a partial solution has been evolved which undoubtedly explains some of the puzzling aspects of this condition.

The present consensus of opinion as to etiology is reflected in the survey made by Reed,[2] and reported in the *New Orleans Medical and Surgical Journal,* in December, 1923. This was abstracted in the *Year Book of Urology,* in 1924 (Cunningham[3]), the theory being that gonorrheal infection produces changes in the lower genital tract with a consequent lowering of resistance, thus permitting organisms usually harmless under ordinary conditions to become pathogenic.

Compilations of reports from various sources show that 45 per cent of bacterial nonspecific urethritis cases never had gonorrhea, and that 55 per cent had gonorrhea some years previously.

The cases which had no gonorrhea do not come under the classification of permanent urethral damage, and how the other group which had gonorrhea several years previously could have a persistently lowered urethral resistance and not show urethritis until years later, still remains unexplained. Obviously, in the face of these facts, another cause must be sought out and proved other than a purely bacterial theory, and also that other factors may be responsible in these cases.

Further reports of large series of cases indicate that organisms, such as the colon bacillus, staphylococcus, etc., are present in 90 per cent of all cases of nonspecific urethritis, and absent in only 10 per cent.

The question now arises as to why, if these bacteria have been present in the urethra for a long time, a urethritis should suddenly develop without warning or without any other cause or provocation. If, as has also been reported by many observers, most of these cases are bacterial in origin should there occur such a rapid cure, and in many instances a spontaneous one without eliminating the bacteria from the urethra?

Some of the etiologic factors believed responsible for the production of this disease have been mentioned here and abroad by McNally,[4] Hull,[5] Oelsner,[6] Pugh,[7] Chwalla,[8] and many others. These factors include prophylactic injections, infection under the foreskin, intra-urethral chancroid, intestinal disturbance, excessive masturbation, local urethral treatment, prolonged sexual abstinence, overindulgence or irregularities of sex practices, endo-urethral chancres, trichomonas vaginalis, chronically inflamed urethral crypts or glands of Littre, phosphaturia, oxaluria, defecation prostatorrhea, impairment of drainage, with stricture and local mucosal erosions.

PREDISPOSING FACTORS

In a little less than 50 per cent of all cases, one or more of the above predisposing factors have been found present, but in slightly more than 50 per cent none of these factors have been found. It is, therefore, assumed that there could have been no known factor to remove, and in view of the prevalent opinion that the principle of treatment of nonspecific urethritis consists in removing the cause, it can be seen where the difficulty has been in trying to cure these cases because of such a limited knowledge of the etiologic factors.

Bierhoff,[9] in the *Urological and Cutaneous Review* of July, 1934, rightly states that "all too frequently the physician contents himself with the mere treatment of symptoms along empirical lines; and although much has been written regarding numerous causative agents and forms of treatment, precise diagnoses have received but little attention."

Ellis[10] in the *Medical Journal of Australia,* August 2, 1924, states as his belief that, while gonorrhea is the most frequent predecessor to chronic

* Read before the Urology Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

urethritis, some cases are not preceded by gonorrhea.

The influence of certain irritants has been recognized, and their elimination has had a beneficial effect on the course of the disease. As a consequence, the same precautions and eliminations have been applied in every case. A blanket indiscriminate suspicion has been cast upon all so-called irritants such as alcohol, highly seasoned and spiced foods, sweets, acids, condiments, etc., the indulgence in which seemed to have aggravated the symptoms of the urethritis.

The consensus of opinion at the present time, in so far as treatment is concerned, is that adjuncts in promoting a cure are to be found in restrictions of such irritating factors as generally mentioned above; but in not a single instance has any attempt been made to isolate these separate items into possible single specific etiologic factors.

RÔLE OF FOODS

In a detailed analysis of all of the various irritating factors, the elimination of which seemed to temporarily or permanently arrest the symptoms of nonspecific urethritis, it was discovered that the patients periodically indulged in excesses of certain kinds of foods or drinks. Occasionally the patient would notice and report that when he indulged in a particular type of excess, the urethral discharge would appear.

This led to the testing out of these cases along these lines. When a patient presented himself with a urethral discharge, the gonococcus was eliminated first as a specific factor, then the prostate was eliminated for infection, the urethra for strictures as well as all other possible complicating pathologic factors. Having thus established the existence of an uncomplicated nonspecific urethritis with purulent or mucoid discharge, with or without bacteria such as colon bacillus, staphylococcus, etc., the patient received no local nor constitutional treatment. He was, however, instructed to keep a very accurate detailed record of everything he ate or drank for meals or between meals, and not to change any of his habits in this respect.

A week's compilation of his diet, in conjunction with the daily record of his discharge, was then studied, special notation being made of all similar articles of food or drink, except water, that appeared repeatedly every day. These were all eliminated from the diet and usually, in uncomplicated cases, the discharge disappeared in from one to two days and the patient apparently recovered without any additional treatment. In most instances there was more than one article of food or drink eliminated. In these cases, after the discharge had disappeared for at least one week, one of the forbidden articles was added to the diet for daily consumption. In each instance when the particular article was added to the diet for which this individual had a specific sensitization, the urethritis would reappear in from one to three days. After again removing this offending article from the diet, there was again a spontaneous recovery from the urethritis. The remaining articles were then added to the diet, one at a time, and they usually showed no untoward effect upon the urethritis. Occasionally a case was picked up that showed a specific sensitization for two or more things.

During the analysis of a series of 120 cases there have been some cases of recurrence of the urethritis. In almost every instance of this kind, where a specific sensitization had been found, the history of the patient disclosed a careless reindulgence in the article of food or drink for which he had been specifically susceptible and had been cautioned against in the first place.

This was a particularly significant observation, as well as the persistent regularity with which the urethritis could be reproduced experimentally by giving the patient the particular food or drink for which he was found sensitive. This unquestionably would explain the previously unaccountable recurrences that have been repeatedly reported by other observers, as well as the irregularity of the discharge, from day to day, without regard to the intensity of local treatment, and also the fact that (Barbillon) in spite of their stubborn nature and recurrences, they do not seem to become chronic and many of the other heretofore idiopathic and unexplained peculiarities.

These observations are not without precedent in other fields of pathology, and may by the same token be accepted as logical and responsible for the direct production of nonspecific urethritis. Noteworthy parallels of food sensitization may be found in the production of asthma and some of its kindred respiratory affections, as well as in some of the acute and chronic skin lesions and urinary tract disturbances.

In this connection, allergy-producing symptoms in the urinary tract have been reported by Rowe[11] in his book on "Food Allergy," published in 1931, in which he mentions certain specific food factors such as eggs, onions, wheat, barley, oats, rice, coffee, lettuce, etc., producing bladder symptoms such as dysuria, tenesmus, and continuous pain over the bladder, with little or no demonstrable pathology.

Rowe states that the fact that bladder allergy can exist is substantiated by the use of the allergic reaction in the bladder musculature in the experimental animal by Manwaring and Marino.

Duke,[12] in the *New York Medical Journal,* November 1, 1922, states that: "In patients that have frequent and painful urination, the severity of symptoms is frequently out of all proportion to the lesions found after careful examination. In cases of this sort bladder symptoms are frequently the result, I believe, of the ingestion of foods to which the patient is sensitive."

FOOD SENSITIZATION TESTS

Because of failure of specific skin reactions to foods by the cutaneous method in these cases, results were obtained after trial diet elimination along the same lines as were adopted in the present series of cases of urethritis. Duke has found that cutaneous tests, while useful in air-carried allergins, fail in the bladder cases, and recommends the intracutaneous method.

The specific food sensitizations discovered in this series by the trial diet elimination process, were corroborated in many instances by obtaining a positive intradermal reaction to the same factor that produced the urethritis.

The correlation of skin and urethral allergy was found in a case in this series in a man thirty years old, who had indulged in one to three eggs two to three times daily for a period of three weeks. At the end of this time a nonspecific urethritis appeared, accompanied by an urticaria. He gave a history of previous similar attacks of urticaria following overindulgence in eggs, and knew that he had such a sensitization. This was the first time, however, that it was accompanied by an acute urethritis. After removing eggs from his diet, the urethritis, in three days, entirely disappeared and the urticaria subsided after two weeks.

Although the liquors and some of the foods have been isolated into separate individual sensitizations, such as gin, Bourbon whisky, certain types of wine, orange juice, oysters, tea, Spanish tamales, tomato juice, etc., the general classification of highly spiced foods and sweets have thus far been considered as a whole in this series, and not segregated except in a few instances. It will be the purpose of further observations to study and possibly segregate the various types of sweets and spices, or spicy foods, into separate factors of sensitization, in order not to create a permanent hardship upon an individual if he should be sensitive to chocolate and not other forms of sweets such as puddings, cakes, pies, ice cream, etc., or if he should be sensitive to spicy or peppery meats, bologna, etc., and not be affected by salty foods such as herring, sardines, or even spaghetti sauce or relish, etc.

The importance of determining and segregating these individual food factors can be seen from the experiments with alcoholic beverages. In almost every instance of sensitization for alcoholic beverages, it was found that the individual was sensitive to only one type of liquor. When this type was discovered, addition of other forms of liquor produced no harmful effects and had no tendency to reproduce the urethritis.

A word picture of typical cases of specific food and drink sensitization may be seen in the following cases:

REPORT OF CASES

Case 1.—S. DeG., male, age forty-two, single, uncomplicated gonorrhea eight years, previously cured in three weeks, recurrent mild attacks of hay fever and asthma for the past fourteen years; no other illnesses nor operations; present illness commenced two days ago with profuse continuous thick yellow purulent urethral discharge; history of exposure ten days before. Examination revealed an uncomplicated, acute nonspecific urethritis. The patient was given no local treatment, but instructed to return in one week with a list of everything he ate and drank, and especially cautioned not to refrain from anything he had been doing in the past two weeks.

Upon his return he reported that the discharge had been continuous and very profuse. After inspecting his diet list for the week, the one item of tomato juice stood out so prominently and reappeared so consistently day after day as the only persistently overindulged in article consumed that one could almost with certainty pick it out as the probable specific factor. Nothing else was eliminated from the diet. Twenty-four hours later the patient called up to report that the discharge had diminished very appreciably. At the end of three days, examination showed no evidence of discharge. Both glasses of urine, in a two-glass test, were clear and contained no pus.

The patient refrained from drinking tomato juice for a period of three weeks, during which time he received no treatment whatsoever and showed no evidence of urethritis. At the end of this period he was induced to try an experiment to corroborate the diagnosis. He resumed drinking tomato juice twice daily, and in twenty-four hours noticed a slight irritation at the meatus and some mucoid discharge which, at the end of forty-eight hours, became profuse and purulent and showed a fully developed urethritis exactly as he had had originally. He immediately discontinued drinking the tomato juice, and the urethritis again spontaneously cleared up. He has since refrained from drinking tomato juice or eating tomatoes, and has had no recurrence of the urethritis.

* * *

Case 2.—Dr. H. S., male, age thirty, married, no history of gonorrhea, thin undernourished man of small stature, history of several attacks of acute pyelitis, which have cleared up entirely. X-ray pictures showed a reduplication of the right ureter and renal pelvis, with no evidence of hydronephrosis, no other illnesses nor operations, no history of exposure to infection.

The patient appeared, complaining of a profuse purulent urethral discharge for the past two days. A diagnosis of acute nonbacterial nonspecific urethritis was made after all other pathology was excluded. The patient was told to record his diet and return in one week.

In questioning this patient as to any change in his diet for the past two or three weeks, he volunteered the information that he had been trying to gain some weight and had, therefore, recently increased his carbohydrate intake in the form of an addition of ovaltine daily as well as ice cream and chocolate. After eliminating these three things, the urethritis disappeared entirely. In two days he was free of symptoms. He was subsequently allowed occasional portions of vanilla ice cream, but the addition of chocolate or ovaltine immediately precipitated an attack of urethritis.

During the first week's period of recording the diet in this case it was observed that on one of the two mornings following the evening upon which he did not take the ovaltine, but had eaten ice cream or chocolate, the discharge had lessened somewhat temporarily, showing the probability of a greater sensitization for ovaltine on his part than for either ice cream or chocolate, which proved to be the case on testing him out later after the sensitization was established.

* * *

Case 3.—M. G., male, thirty-nine years old, with a history of several previous attacks of gonorrhea, heavy eater and drinker—four to eight Bourbon or Scotch whiskies daily, also drank wine and cordials, indulged in all sorts of excesses of highly spiced foods and sweets.

Despite all of these irritants, it was discovered, after a long process of elimination, that the only specific factor in this case was shell food. His diet included one or two crabs, two dozen oysters, broiled lobster, shrimps, or steamed clams daily. After this was established, it was found that the addition of any one of these sea foods produced a urethritis, the elimination of which brought about a spontaneous cure. After the elimination of these sea foods, the patient contined to indulge in excesses of foods and liquors of all other varieties, but showed no ill effect, in so far as any recurrence of the urethritis was concerned.

* * *

Case 4.—R. M., male, case of nonbacterial urethritis, with a spontaneous cure, in a Frenchman, thirty-two years old, who had recently come to this country from France. He had hardly ever tasted orange juice in his native land because of its prohibitive cost. Soon after he arrived in California he drank large quantities of orange juice and ate grapefruit daily, the elimination of which produced immediate results in the cessation of the urethral discharge and the disappearance of his symptoms.

TABLE 1

Specific Factor	No. of Cases	Percentage
Sweets (candy, chocolate, pie, pastry, cake, ice cream, ovaltine, malted milk)	54	45.0
Whisky (mostly raw young Bourbon whisky)	8	6.66
Tequila	1	0.83
Beer	4	3.33
Wine	2	1.66
Orange juice	4	3.33
Liquors	1	0.83
Seminal fluid	1	0.83
Shell fish (crabs, clams, shrimps, oysters, lobsters)	3	2.5
Lemonade	1	0.83
Gin	11	9.16
Tomato juice	4	3.33
Tea (English breakfast, strong)	2	1.66
Spanish tamales	1	0.83
Spices (spaghetti sauce, bell peppers, relish, herring, spiced meats)	10	8.33
Eggs	1	0.83
Cases with no specific factor	12	10.0
Total	120	99.94

COMMENT

In one case, attacks of acute urethritis developed immediately after intercourse. These were subsequently prevented by irrigating the anterior urethra with a weak solution of potassium permanganate immediately following intercourse.

It has been found that normal sexual intercourse does not affect the course of a nonspecific urethritis, but that abstinence may aggravate the condition by increasing the discharge because of the well-known irritating effect of seminal fluid on the urethral mucosa. With abstinence, there is apt to be seminal fluid in the urethra constantly because of an overflow from excess of retained seminal fluid.

It is not the intention of this report to convey the impression that all of the 120 cases in this series were readily and completely and spontaneously cured by the simple process of elimination of a specific offending factor after it had been determined. This was accomplished only in the uncomplicated acute primary or recurrent type of case of which there were sixty-six in number. Neither is it the purpose of this discussion to detract from attention to and treatment directed toward the correction of complicating local pathology, which may also cause or contribute toward the production of this disease such as cystitis, prostatitis, ulcerations of the urethra, urethral strictures or cysts, etc., of which there were fifty-four in the series.

After treatment of complicated cases with the various methods such as prostatic massage, urethral dilatation, instillation, irrigation, fulguration, etc., depending on the complication found, it was noticed that in almost every instance, as soon as a specific sensitization for any particular food or drink was discovered and this offending factor removed from the diet, most of the cases showed an appreciable diminution in the amount and virulence of the urethral discharge, and an occasional case was entirely cleared up. This led to the deduction that even in complicated cases of this kind there may also be a specific food etiologic factor complicating the situation, the removal of which will benefit the patient and increase the possibility of ultimate cure.

Table 1 presents a tabulation of 120 cases of nonspecific urethritis, either simple or acute, or accompanied by other complicating genital pathology with enumeration and percentage of each of the various specific food and drink factors found in this series.

CONCLUSIONS

1. The production of a nonspecific urethritis is not dependent upon a previously existing gonorrhea.

2. Peculiarities of this condition, such as spontaneous recovery, absence of chronicity, frequent recurrences, different types of discharge, irregularity in clinical course irrespective of treatment, and many others, find their logical explanation in the discovery of certain individual specific food and drink factors.

3. Indulgence by an individual in a food or drink for which he has a specific sensitization may produce a urethritis.

4. Elimination of one or more foods or drinks to which an individual is sensitive and from which he has acquired a urethritis, will bring about a spontaneous cure in uncomplicated cases, and a recession of the discharge and an improvement in the symptoms in cases with complications.

5. Sweets apparently far outnumber all other articles of food as specific factors of sensitization in the production of this disease.

6. A small percentage of cases either do not fit into the theory of specific sensitization or, if they do, have remained as yet undiscoverable.

7. Ninety per cent of the cases not due to factors here classified as complications, namely, trichomonas vaginalis, urethral strictures, venereal prophylaxis, endo-urethral chancres, etc., are directly due to and caused by a specific food sensitization.

8. Similarity of specific food sensitization in urethritis to asthma, urticaria, bladder and kidney allergy, etc.

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DISCUSSION

Louis Clive Jacobs, M.D. (450 Sutter Street, San Francisco).—Nonspecific urethritis is particularly interesting to urologists because of its diverse etiology, the persistence of discharge, and the difficulties encountered in producing a permanent cure. At some time or other, all of us have had our ingenuities taxed in the treatment of this condition.

It is manifest that numerous underlying causes are productive of urethritis. The male urethra is a highly sensitive organ lined with a delicate mucous membrane, and consequently is prone to inflammatory reactions.

Doctor Steinberg in this thesis describes many of these causes which result in urethral discharge. He has demonstrated that urethritis may be of allergic etiology, and hence this disease, which was formerly thought to be purely etiologically provincial in character, may be due to generalized causative factors. He reports a series of 120 patients in whom a close survey of the diet was made, so that many, by the elimination of sensitizing foods, recovered. By this means he has proved that the competent urologist must be conversant with the principles and practices of general medicine, and must approach his problems from the viewpoint of the internist, as well as from that of the urologic specialist.

It is only in recent years that various urological problems, such as bladder pain, frequency, and nephralgias, have been described on the basis of allergic etiology. With this in mind, it behooves the urologist to learn some of the facts of allergy. Research investigations and reports have been meager. Hence our opinions must necessarily be founded upon clinical data, similar to that presented by Doctor Steinberg in his manuscript.

The relationship as demonstrated between ingested food and the urethral reaction is of extreme clinical significance. We have all long known that certain individuals have idiosyncrasies toward certain foods, but in the past the investigations did not follow the routine as outlined by the essayist.

It was in 1864 that Dr. Henry Salter drew the attention of the medical world to the fact that certain foods, which are nonirritating to the ordinary individual, produced asthmatic paroxysms in some few patients. He described this as a hypersensitiveness on the part of the person to certain foods. This was the forerunner of more scientific investigations, and has eventuated in the modern study of allergy.

A review of the literature, including such authors as Doctors Duke, Rowe, and Dray, would lead one to believe that there are allergic etiological factors present which can produce a urethritis in some patients. Nevertheless, one cannot disassociate the idea of chemical irritants being eliminated through the urethra as a result of metabolic processes taking place within the body during the digestion of food products. Nor can one disregard the idea that metabolism plays a prominent part in individuals with a gouty diathesis, and is responsible frequently for a nonspecific urethritis.

I believe that we urologists should undertake further investigations of the reactions of our patients to certain foods. The knowledge thus obtained, with that submitted by Doctor Steinberg, would in the future give a more comprehensive understanding of this particular subject.

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Robert V. Day, M.D. (1911 Wilshire Boulevard, Los Angeles).—The perusal of the paper by Doctor Steinberg is very intriguing, for there is no question but that allergic affections of the urethra is a very important subject in no way to be brushed aside.

Nonspecific urethritis is not at all uncommon. It often originates from previous inflammatory damage to the urethra and occasionally from descending infections, and I think, rarely, as a manifestation of an allergic state. A very common cause is oft-repeated prophylactic injections of Protargol solutions, and this type is quite resistant to treatment.

The incidence of allergic urethritis has been much less in my experience than in that of Doctor Steinberg's. Even when diagnosed we are often unable, in some instances, to do a lot for it. I have usually found, after due investigation, a pathologic basis for practically all cases of nonspecific urethritis. After the ordinary pathologic conditions have been discovered and cleared up, in such cases one may frequently find one or the other type of irritation hyperplasia in the posterior urethra, provided one examines with a Stern (water-dilating) urethroscope. Open-end urethroscopes, such as Koch's and others, are practically useless both in the anterior and posterior urethra. The air-dilating instrument of Gordon is occasionally useful in the anterior urethra. The McCarthy and Buerger cystourethroscopes provide excellent vision, but only a small circumference can be visualized in a field. The Buerger urethroscope and several others are too cumbersome, and it remained for Maximilian Stern to really reduce the water-dilating urethroscope to its ultimate simplicity. Through it one may obtain an excellent perspective view of the entire circumference of the urethra over its whole length, and a close-up gives ample detail. Any topical therapy indicated may be directed to the spot or spots after a precise diagnosis has been made.

It need not be employed except in a certain small percentage of cases of nonspecific urethritis or residual cases of specific urethritis.

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Burnett W. Wright, M.D. (727 West Seventh Street, Los Angeles).—The author has rendered the profession a real service, not only by presenting his evidence of specific sensitization in the urethral mucosa, but also by outlining a simple means of utilizing this information in the individual case. The review of a written record of food and drink consumed for a week is a much simpler method of finding the sensitizing substance than either the extensive intradermal tests or the basic diet with daily addition of a single food, tests ordinarily employed to determine food allergy. The fact that this simpler procedure is effective will greatly facilitate and hasten the use of this new technique in the treatment of nonspecific urethritis by urologists generally.

When confronted by a case of nongonorrheal urethritis, it is good practice to inquire carefully into the dietary habits of the individual, and particularly into any dietary indiscretions just prior to the appearance of the discharge. During prohibition, the finger of suspicion frequently pointed to that almost forgotten beverage, "bathtub gin." It has been my feeling that in such cases the urethritis was secondary to intense irritation of the urethra by the unusual products of metabolism excreted in the urine, and that following such irritation the resistance of the urethra was so decreased that organisms of low virulence could establish an infection. The conception of allergy presented in this paper would account for the evident lowering of resistance by a different mechanism, but the treatment calls for withdrawal of the offending substance in either case, and for attention to the infection itself. In this latter regard, it may be well to remember the use of such time-honored remedies as irrigations with mercury oxycyanid to control the infection or hasten its demise after the resistance-lowering substance has been removed from the diet. It is well to remember, too, the figures quoted in this paper showing almost half of the cases complicated by cystitis, prostatitis, strictures, or other pathology requiring careful diagnosis and adequate treatment.

This presentation has helped to answer many of the puzzling problems concerning nonspecific urethritis, but it also raises some questions which will no doubt be the subject of further investigation. For instance, it is noteworthy that a few of the patients in this series exhibited some common allergic symptoms, such as urticaria or hay fever, but apparently the majority were not so afflicted. Why should the urethral mucosa be sensitive when other membranes are not? It would be interesting to know if the urethra is sensitive to the specific food as ingested or only to its metabolized end-products as excreted in the urine. If the latter is the case, it would help to explain the localization of allergic manifestations only to the areas touched by the urine. Now that attention has been called to this subject, additional evidence may be expected from the use of passive intradermal tests of specific sensitivity as well as from clinical experience developing in the practice of other physicians.

Nonspecific urethritis has long been an elusive subject hiding in a dark corner of urological science and avoiding many of the best-aimed darts of therapeutic endeavor.

ALEUKEMIC MYELOSIS (ALEUKEMIC LEUKEMIA)*

WITH SPECIAL REFERENCE TO THE CLINICAL SIGNIFICANCE OF THE MYELOBLAST— ANALYSIS OF TWENTY CASES

By STACY R. METTIER, M.D.
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DISCUSSION *by A. G. Foord, M. D., Pasadena; James F. Rinehart, M. D., San Francisco.*

THE occurrence of immature leukocytes in the peripheral blood is a phenomenon which often occasions diagnostic difficulties. The bone marrow, by virtue of its labile nature, may release young polymorphonuclear leukocytes, occasional myelocytes and even myeloblasts for circulation during the course of infection,[1] when the marrow cavities are obliterated by osteosclerosis,[2,3] or following the invasion of blood formative tissue by tumor metastasis.[4] This reaction gives rise to clinical manifestations and changes in the blood picture similar to, and frequently confused with, those of true myeloid leukemia and aleukemic myelosis.

During the past five years we have examined many patients whose blood streams contained abnormal cells. It is our purpose to present the important clinical and laboratory data on a selected group of twenty cases of leukopenia and anemia, in which the presence of myeloblasts in the blood films were the determining factor in the differential diagnosis. These cases have been diagnosed as aleukemic myelosis.

IDENTITY OF THE MYELOBLAST AND LEUKOGENESIS

Criteria for the recognition of the myeloblast and its differentiation from other immature cells have accumulated slowly during the past three decades (Naegeli, Downey, Piney). By means of morphological, biological and tinctorial methods, and by the comparatively recent introduction of supravital staining technique, sufficient data have been obtained to establish this cell as a structural unit. Naegeli,[5] who, in 1900, was among the first to describe the myeloblast, used the Giemsa and oxydase stains in his studies. The Romanowsky stains, including Wright's modification, have come into general usage, and these bring out the characteristics of the cells in a similar manner.

The myeloblast is a cell varying in size from 11 to 18 micra. Generally, it is round and contains a narrow rim of cytoplasm stained deeply blue. In stained-film preparations, certain characteristics of the nucleus, which is large and eccentrically placed, distinguish the myeloblast from other cells. The chromatin is reddish purple and is collected in uniform clumps, giving the nucleus a fine-meshed or stippled appearance. Scattered throughout the nucleus are from two to eight small, round or oval areas of less intense pigmentation, usually pale blue, which may be designated as nucleoli. The cytoplasm, which borders a rather indefinite nuclear membrane, may take the stain less intensely, but there is not the sharply demarcated perinuclear halo characteristic of the lymphocyte. Rarely, the cytoplasm includes rod-like bodies which stain red with Wright's stain. These are the so-called Auer bodies.

The origin of the formed elements of the blood has been a controversial subject. It does not enter the scope of this paper to discuss the monophyletic (Domenici, Wiedenreich, Pappenheim) or polyphyletic (Ehrlich, Naegeli, Sabin) hypotheses concerning leukogenesis, but it is of practical importance to review the various stages of development of the leukocyte from the myeloblast to the adult form. According to the concept of Sabin,[6] the parent cells of granulocytes arise from reticular cells lining the sinusoids of the bone marrow, and from these differentiate into adult forms. In the intermediate stages there is the formation of myeloblasts which, through subsequent progressive nuclear lobulation and the cytoplasmic inclusion of granules, become myelocytes. In the circulation, the fully matured form of the granulocyte appears with a nucleus of two or more lobules joined by filamentous threads.

Normally, immature cells do not appear in the blood stream. However, with minimal stimulation of the bone marrow, many of the leukocytes show a tendency toward incomplete lobulation. With moderate to severe stimulation, a proportionately larger number of leukocytes fail to attain complete maturation, and a larger percentage of young cells appear in the differential formula. This is known as a "shift to the left," according to the Schilling[7] modification of the Arneth[8] method of classifying leukocytes. In sepsis, then, or any other disease process in which there is a marked degree of stimulation of the leukopoietic tissue, immature cells, including myeloblasts, may appear in the peripheral blood.

Clinically, it is important to keep in mind the identity of the myeloblast and the change which may take place in leukogenesis under abnormal circumstances, in order to evaluate properly the various blood pictures encountered. The data on the twenty case records presented below show in common the presence of immature cells in the circulating blood associated with leukopenia and anemia. Analyses of various laboratory procedures, combined with careful clinical studies, failed to reveal the presence of infection or malignant neoplastic processes which might be held accountable for the abnormal findings in the blood. Bone-marrow was removed at biopsy or at autopsy in ten of the twenty cases; and in the specimens obtained a reaction was evident which was consistent with a diagnosis of aleukemic leukemia.

INCIDENCE OF ALEUKEMIC MYELOSIS

There is relatively little to be found in the medical literature on the frequency of occurrence of aleukemic leukemia. In textbooks of medicine it

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TABLE I

CASE NUMBER	AGE	SEX	HEMOGLOBIN % GRAMS	R.B.C. IN MILLIONS	W.B.C. PER Cu.MM	Pmn * F-NF	Pme	Pmb	Lymphocyte	Monocyte	Myelocyte	Myeloblast	Nucleated R.B.C. per 100 wbc	Platelets	CLINICAL MANIFESTATIONS	BIOPSY OF STERNAL MARROW	AUTOPSY DIAGNOSIS
TB 1	38	M															
1st BLOOD COUNT 7-20-33			55-77	3.27	2300	7-22			46	26	1	2	2		TEMPERATURE – 36.8 – 38.6 PURPURA-RETINAL HEMORRHAGES SPLEEN – NOT ENLARGED LYMPH NODES – NOT ENLARGED	HYPERPLASTIC MARROW CONSISTENT WITH MYELOID LEUKEMIA	ALEUKEMIC MYELOSIS
LAST " 10-24-33			10-14	0.50	980	8-28			16	12	20	16		40000			
MT 2	28	F															
1st BLOOD COUNT 1-3-33			37-47	2.08	1750	22-42			18	7	9	2	8	150,000	TEMPERATURE – 37 – 38 PURPURA – GENERALIZED SPLEEN – GREATLY ENLARGED LYMPH NODES – MODERATELY ENLARGED		
LAST " 2-20-33			20-28	1.15	3950	3-9			13	2	20	53	1	40,000			
JB 3	55	F															
1st BLOOD COUNT 8-9-33			47-66	2.96	5150	50-23	1		18	9	0	0			TEMPERATURE 38.3 PURPURA – NONE SPLEEN – SLIGHTLY ENLARGED PRIOR TO DEATH LYMPH NODES – NOT ENLARGED		ALEUKEMIC LEUKEMIA.
LAST " 10-3-33			19-27	1.19	2750	39-56			14	5	3	2					
MC 4	47	M															
1st BLOOD COUNT 2-18-36			24-34	0.87	3300	34-12		2	44	8	2	2	102		TEMPERATURE – 37 PURPURA – NONE SPLEEN – NOT ENLARGED LYMPH NODES – NOT ENLARGED	HYPERPLASIA OF MARROW CONSISTENT WITH MYELOID LEUKEMIA	
LAST " 3-18-36			36-50	1.68	5000	34-14			32	2		14	60				
HC 5	49	M															
1st BLOOD COUNT 2-24-36			70-98	2.91	3750	24-14	1		53	7		1			TEMPERATURE – 37.4 PURPURA – NONE SPLEEN – NOT ENLARGED LYMPH NODES – NOT ENLARGED	HYPERPLASIA OF MARROW CONSISTENT WITH MYELOID LEUKEMIA	
LAST " 3-14-36			65-92	1.70	3600	1-14			35	3	17	30	7	100,000			
BW 6	41	F															
1st BLOOD COUNT 2-8-32			52-73	2.08	5650	15-20	1		32	1	7	24	4		TEMPERATURE 37-38 PURPURA – GENERALIZED SPLEEN – MODERATELY ENLARGED LYMPH NODES – MODERATELY ENLARGED		
LAST " 2-16-32			38-59	1.45	3300	4-28			56	6	6	20	2				
MT 7	52	F															
1st BLOOD COUNT 2-2-33			31-43	1.45	4500	26-28			18	12	15	1	4		TEMPERATURE – 38 PURPURA – GENERALIZED SPLEEN – NOT ENLARGED LYMPH NODES – NOT ENLARGED		
LAST " 2-12-33			13-19	0.84	3350	26-49			14	9		2		120,000			
MJ 8	48	M															
1st BLOOD COUNT 11-21-33			15-22	0.90	3150	21-14		6	16	5	20	18	1		TEMPERATURE – 40 PURPURA – GENERALIZED SPLEEN – NOT ENLARGED LYMPH NODES – NOT ENLARGED		
EF 9 **	54	F															
1st BLOOD COUNT 1-5-35			58-81	3.64	2900	34-37		2	17	4	2	4			TEMPERATURE – 37.4 PURPURA – GENERALIZED SPLEEN – MARKEDLY ENLARGED LYMPH NODES – SLIGHTLY ENLARGED		
LAST " 11-9-36			70-98	3.13	1650	33-21		2	19	13	5	5	1	226,000 60,000			

* ABBREVIATION FOR FILAMENTED AND NONFILAMENTED POLYMORPHONUCLEAR LEUCOCYTES
** PATIENT LIVING

Table 1.—The important clinical and laboratory data on nine patients with aleukemic myelosis and persistent leukopenia.

is stated that a rare form of leukemia without a leukemic blood picture does occur (Rosenthal and Harris[9]). Blakenhorn and Goldblatt[10] studied the records of the Lakeside Hospital in Cleveland and found that, of fifty-two cases of leukemia, diagnosed prior to December, 1920, six were reported to have had a normal leukocyte count at some time during the period they were under observation. King[11] reported fourteen cases without leukocytosis from a total of 105 cases of leukemia in the records of the Johns Hopkins Hospital prior to 1917. Neither Pinkerton[12] nor Baldridge,[13] in their excellent reports, mentioned the frequency with which leukemia without leukocytosis may occur.

During the five-year period between February, 1932, and February, 1937, in which this study was in progress at the University of California Hospital, thirty-four patients with myeloid leukemia were admitted to the wards. Of this number, fourteen were diagnosed as aleukemic leukemia, and represent two-thirds of the cases reported in our series; thus 40 per cent of the patients with leukemia entering the medical wards showed a low white blood-cell count. The remaining six patients were seen in the office and out-patient department.

AGE OF ONSET

Leukemia may occur at any age. The acute form of the disease appears with greater frequency during the third decade of life, whereas the chronic form is found more frequently during the latter part of the fourth decade.[9,14] With regard to aleukemic leukemia, an analysis of our series revealed that this diagnosis was made on two patients younger than twenty years of age; on four patients during the second and third decades; and on seven, or one-third of the patients, between forty and sixty years of age. It is to be noted in the tables that an aleukemic blood picture was found in four patients between fifty and sixty years of age, in two above sixty, and in one at seventy years of age.

TABLE II.

CASE NUMBER	AGE	SEX	HEMOGLOBIN % GRAMS	R.B.C. IN MILLIONS	W.B.C. PER Cu.MM	Pmn * F-NF	Pme	Pmb	Lymphocyte	Monocyte	Myelocyte	Myeloblast	Nucleated R.B.C. Per 100 wbc	Platelets	CLINICAL MANIFESTATIONS	BIOPSY	AUTOPSY DIAGNOSIS
EP 10	21	F															
1st BLOOD COUNT 2-14-32			50-70	1.78	7600	39-1	4		45	3	4	8	1		TEMPERATURE – 36.8 – 37.4 PURPURA – GENERALIZED SPLEEN – NOT ENLARGED LYMPH NODES – CERVICAL	MYELOID METAPLASIA OF LYMPH NODE	ALEUKEMIC LEUKEMIA
LAST " 3-3-32			40-64	1.18	1350	24-18			25	3	18	8	2	40,000			
FB 11	57	M															
1st BLOOD COUNT 2-10-33			78-109	3.07	8950	42-21	8	2	17	4	5	3	37		TEMPERATURE – 36-39 PURPURA – LEUKEMIA CUTIS SPLEEN – MODERATELY ENLARGED LYMPH NODES – NOT ENLARGED	LEUKEMIA CUTIS	MYELOID LEUKEMIA
LAST " 2-20-33			60-84	2 80	8300	38-24			20	8	4	8	16				
TE 12	40	F															
1st BLOOD COUNT 4-6-34			10-14	0.71	9850	12-10			18			60			TEMPERATURE – 36.4 – 38 PURPURA – GENERALIZED SPLEEN – SLIGHTLY ENLARGED LYMPH NODES – NOT ENLARGED		MYELOID LEUKEMIA
LAST " 4-20-34			25-35	0.99	7850	15-16			19			50					
TG 13	43	F															
1st BLOOD COUNT 5-15-31			45-63	3.90	4400	46-20	2		12	8	8	4			TEMPERATURE – 37.2 PURPURA – SLIGHT SPLEEN – MARKEDLY ENLARGED LYMPH NODES – NOT ENLARGED		MYELOID LEUKEMIA
LAST " 3-15-34			40-56	3.07	8500	33-36		1	18	6	4	2					

* ABBREVIATION FOR FILAMENTED AND NONFILAMENTED POLYMORPHONUCLEAR LEUCOCYTES

Table 2.—A group of four patients whose leukocytes varied between 6,000 and 9,000 cells per cubic millimeter.

TABLE III

CASE NUMBER	AGE	SEX	HEMOGLOBIN % GRAMS	R.B.C IN MILLIONS	W.B.C PER Cu.MM	Pmn * F-NF	Pme	Pmb	Lymphocyte	Monocyte	Myelocyte	Myeloblast	Nucleated R.B.C per 100 W.B.C	Platelets	CLINICAL MANIFESTATIONS	BIOPSY	AUTOPSY DIAGNOSIS
MM. 14	61	F															
1ST BLOOD COUNT			1-19-37 58-8.1	2.88	2,100	12-10			42	11	10	9	3		TEMPERATURE-36.5-41		
LAST "	"	"	1-24-37 57-7.9	2.07	42,000	0-1			7	7	73	10	4	65,000	PURPURA-GENERALIZED		
															SPLEEN NOT ENLARGED		
															LYMPH NODES-NOT ENLARGED		
LM. 15	18	M															
1ST BLOOD COUNT			9-16-32 43-6.1	1.61	6,100	6-13	1	1	47	1	16	15	3		TEMPERATURE-36.3		
LAST "	"	"	12-8-32 18-2.5	1.24	12,100	1-1			19	4	12	63			PURPURA-SLIGHT		
															SPLEEN-SLIGHTLY ENLARGED		
															LYMPH NODES-GENERALIZED ENLARGEMENT		
MR. 16	68	M															
1ST BLOOD COUNT			12-2-36 28-3.9	1.18	1,250	16-20			44	4	4	12	2		TEMPERATURE-38-40	HYPERPLASTIC MARROW CONSISTENT WITH MYELOID LEUKEMIA	MYELOID LEUKEMIA.
LAST "	"	"	1-8-37 44-6.2	1.67	52,000	1-6			3	12	6	70	3	150,000	PURPURA-SLIGHT GENERALIZED		
															SPLEEN-NOT ENLARGED		
															LYMPH NODES-SLIGHT GENERALIZED ENLARGEMENT		
CH. 17	3	F															
1ST BLOOD COUNT			7-29-35 55-7.7	2.21	3,500										TEMPERATURE-38.1		
LAST "	"	"	9-11-35 51-7.1	2.53	30,000	3-4			13		38	42	1		PURPURA-NONE		
															SPLEEN SLIGHTLY ENLARGED		
															LYMPH NODES-SLIGHT GENERALIZED ENLARGEMENT		

*ABBREVIATION FOR FILAMENTED AND NON FILAMENTED POLYMORPHONUCLEAR LEUCOCYTES

Table 3.—Data on four patients who developed a terminal leukocytosis of from 12,000 to 52,000 cells per cubic millimeter following a prolonged leukopenia.

SEX DISTRIBUTION

From an examination of the tables it will be noted that twelve of the cases of aleukemic myelosis occurred in females and eight in males. This indicates an increased incidence in the female sex.

SYMPTOMS OF ALEUKEMIC MYELOSIS

The disease was observed to be insidious in its onset. The symptoms complained of most frequently were weakness and increasing ease of fatigability. Over a period of from a few weeks to months the symptoms became more marked, and the patients gradually developed pallor, associated with palpitation, dyspnea, and slight degrees of vertigo. During the course of illness, purpuric manifestations appeared in sixteen of the patients. These varied in intensity from a tendency to bruise easily, in the mild cases, to actual bleeding into the skin or mucous membranes in the more fulminating cases, and in patients who were approaching the terminal stage of illness. Three patients complained of loss of 12 to 25 pounds in body weight. The remaining patients stated that they had had slight loss of weight, but it was noted that all except one patient were in a fair state of nutrition. Accordingly, the patients did not show the cachectic appearance that is usually seen in association with prolonged infection or with neoplastic malignancy.

Fever was present in thirteen of the patients. The fluctuations in temperature varied from subnormal to a slight afternoon rise to 38 degrees centigrade, or to as high as 40 and 41 degrees centigrade. The temperatures recorded were found to be higher in the patients who showed a marked tendency to bleed.

The length of illness in the twenty patients varied considerably. In seven death occurred in four months or less after the onset of illness; nine lived from six months to one year; and four are still alive after a period of more than five years.

SPLEEN AND LYMPH NODES

A slight to moderate enlargement of the spleen occurred in eight of the patients, and in four patients the spleen was greatly enlarged. It is of interest to note that the largest spleens were found in the patients whose data are recorded in Table 4, and whose illness was chronic in duration. In the remaining eight cases there was no clinical evidence of hypertrophy of the spleen. The case records of five of these patients are being published elsewhere.[15]

The cervical lymph nodes were visibly enlarged in one patient, and in eight others there was a slight generalized lymphadenopathy.

HEMATOLOGIC ASPECTS OF ALEUKEMIC LEUKEMIA

Since aleukemic myelosis is primarily a disease of leukopoietic tissues, the twenty cases analyzed here have been divided into four groups, depending on the changes in the leukocyte levels during the course of the disease (Tables 1 to 4). The counts of erythrocytes and leukocytes, and the determination of the differential formulae were made by the authors. It is to be noted in Table 1 that in nine of the patients the highest leukocyte counts did not exceed 6,000 cells per cubic millimeters.

TABLE IV

CASE NUMBER	AGE	SEX	HEMOGLOBIN % GRAMS	R.B.C IN MILLIONS	W.B.C PER Cu.MM	Pmn * F-NF	Pme	Pmb	Lymphocyte	Monocyte	Myelocyte	Myeloblast	Nucleated R.B.C per 100 W.B.C	Platelets	CLINICAL MANIFESTATIONS	BIOPSY	AUTOPSY DIAGNOSIS
BiB**	45	F															
1ST BLOOD COUNT			9-7-31 70-9.8	4.05	5,000	30-31	2	8	22	9	6	1	1	280,000	TEMPERATURE-36.5-37.5		
LAST "	"	"	11-16-36 80-11.2	4.11	20,800	54-13	1		8	2	13				PURPURA-SLIGHT		
															SPLEEN-MODERATELY ENLARGED		
															LYMPH NODES-NO ENLARGEMENT		
OS 19**	70	F															
1ST BLOOD COUNT			8-7-31 80-11.2	5.79	5,500	13-17	10		43		17	7		210,000	TEMPERATURE-36.5-37	HYPERPLASTIC MARROW CONSISTENT WITH MYELOID LEUKEMIA	
LAST "	"	"	2-1-35 81-11.3	4.71	30,400	14-51			21	1	6				PURPURA-GENERALIZED		
															SPLEEN-MARKEDLY ENLARGED		
															LYMPH NODES-SLIGHT GENERALIZED ENLARGEMENT		
MS 20**	31	M															
1ST BLOOD COUNT			12-6-34 60-8.4	3.34	3,250	31-39	1	1	7	9	10	3	7	160,000	TEMPERATURE-37.4		
LAST "	"	"	12-24-36 70-9.8	3.60	13,400	10-34		1	17	9	16	12	21		PURPURA-SLIGHT		
															SPLEEN-MODERATELY ENLARGED		
															LYMPH NODES — NONE		

*ABBREVIATION FOR FILAMENTED AND NON FILAMENTED POLYMORPHONUCLEAR LEUCOCYTES.
** PATIENT LIVING

Table 4.—The data on the three patients with aleukemic myelosis recorded here showed transient leukocytosis during prolonged leukopenia.

In Table 2 are the data on four patients whose counts were between 6,000 and 9,000 white blood cells per cubic millimeter. The four patients whose data are recorded in Table 3, following a prolonged leukopenia, developed a terminal leukocytosis of from 12,000 to 52,000 cells per cubic millimeter. This shift in the leukocyte levels occurred within twenty-four hours in one patient, and within three weeks prior to death in the others. The three remaining patients in the last group (Table 4), who are still living, at one time or another during the course of illness showed a transient increase in the number of leukocytes in the peripheral blood from a leukopenic level to a leukocytosis of 30,000 cells or less per cubic millimeter. The lowest count recorded in any of the patients at any time was 980 white blood cells per cubic millimeter. Our cases, therefore, were characterized by leukopenia except when a transient increase in the number of cells or a terminal leukocytosis occurred.

The most distinguishing feature of the blood was the appearance of immature leukocytes in the stained film. Tables 1, 2, 3, and 4 show the total leukocyte counts in terms of per cent. In sixteen of the patients, at some time during the course of illness myeloblasts were present in excess of 4 per cent. The highest percentage recorded was 70; and the average for the entire group of patients was approximately 16 per cent. In addition, the numbers of myelocytes were moderately increased and averaged 9 per cent for the twenty patients. In four of the patients, the numbers of myeloblasts did not exceed 4 per cent in any of the leukocyte counts that were made. In eleven patients during the early course of illness, few or no myeloblasts were found. It is at this stage of illness that a diagnosis of the patient's illness may be most difficult to establish.

Nucleated red blood cells, including normoblasts and a few erythroblasts, were present in numbers of from 2 to 102 per 100 white blood cells on stained blood films.

With the exception of the three patients whose data are recorded in Table 4, a severe anemia was present in the remaining 17. The number of erythrocytes for the entire series varied from a high level of 5,790,000 to a low level of 700,000 cells per cubic millimeter. The reduction in hemoglobin content of the red blood cells was proportionately less than that of the number of erythrocytes, so that the color indices were approximately 1.0 to 1.5. There was rather wide variation in the size and shape of the red blood cells, as seen in the stained films of blood. Many large round and oval cells were present which were greater than 7.4 micra in diameter. These cells were uniformly stained throughout and were well filled with hemoglobin. Other red blood cells, less frequently seen, were smaller in size than normal, and among them microcytes could be definitely recognized. The anemia became progressively more pronounced in the patients whose data are recorded in Tables 1, 2, and 3. The rapidity of progression of the anemia was altered somewhat by the acuteness of the disease, the presence of purpuric manifestations and whether or not the patient had received transfusion of whole blood.

There was a slight to great reduction in the number of blood platelets in all of the patients. This was accompanied in sixteen of the patients by evidences of bleeding, such as retinal hemorrhages, oozing of blood from the gums, or the appearance of spontaneous hemorrhages in the skin. In a few patients large hemorrhages occurred, and there was protracted bleeding from the mucous membranes.

SUMMARY AND CONCLUSIONS

Clinical and laboratory data are presented on twenty patients whose blood films showed an abnormal number of myeloblasts. In these patients there were found a varying degree of splenomegaly, severe anemia, leukopenia, moderate to marked thrombocytopenia, and a hemorrhagic tendency. In ten of the cases reported, in which it was possible to examine the bone marrow either by biopsy of the sternum or at postmortem examination, myeloid hyperplasia was found consistent with leukemia. It is emphasized that the increase in number of myeloblasts was sufficient to be of diagnostic importance, and enabled the clinician in a high percentage of cases to make a diagnosis of aleukemic myelosis.

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DISCUSSION

A. G. Foord, M.D. (Huntington Memorial Hospital, Pasadena).—Of especial interest to me is the large percentage (40 per cent) of cases of acute myelogenous leukemia, which showed at one time or other leukopenia. It is particularly difficult for a pathologist to impress on his

clinical confrères that the patient is suffering from leukemia when the white count is less than normal. These cases of Doctor Mettier's will help to show that the disease is primarily one of the hematopoietic system, and that there may or may not be an outpouring of excess white blood corpuscles into the peripheral blood. Many of these patients are undiagnosed or are sent into the hospital as cases of purpura, Vincent's angina, or pernicious anemia, depending on the presenting symptom of either purpuric manifestations in the skin, ulceromembranous lesions in the mouth or throat, or a macrocytic anemia. As the authors have shown, the presence of a very few myeloblasts should make one highly suspicious of the disease, and further counts and bone-marrow biopsy, if necessary, should be taken. The marked degree of anemia produced by these cases has been a point of great importance in our laboratory, and particularly the rapid decrease in the amount of hemoglobin and red cells without obvious bleeding should make one suspicious of this disease. Doctor Mettier's figures show cases which have dropped profoundly in the period of a week or two.

In a review of the leukemias at the Los Angeles County General Hospital, Doctor Love recently found that more than half of the acute cases showed some ulceromembranous lesion in the mouth or throat. This phenomenon, associated with anemia, some fever, and sometimes purpura, should lead one to consider acute leukemia as a proper diagnosis. It has not been my experience to find the spleen enlarged in so large a proportion of cases as the authors report. In the more acute cases the spleen is practically never palpable, and the absence of splenomegaly should not detract from the diagnosis of leukemia.

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James F. Rinehart, M.D. (University of California Hospital, San Francisco).—Doctor Mettier has drawn our attention to a form of leukemia that has offered great difficulty in diagnosis. In any case of unexplained anemia, particularly when associated with a leukopenia, the diagnosis of an aleukemic myelosis must be given serious consideration. This is particularly true when purpuric manifestations are present. The great significance of primitive white blood cells or myeloblasts in the blood stream has been set forth. Identification of these elements requires painstaking study and familiarity with cytological details of blood cells. Although the diagnosis appears well supported in most of the cases, a larger series with complete necropsy examination is desirable.

SOCIAL SECURITY: IN RELATION TO THE PHYSICIAN*

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NINETY-FIVE per cent of doctors at the age of sixty-five will either be dead or entirely dependent. Our relatives, friends, or charity are our chief security! National Social Security for the plumber or street sweeper provides old-age income or sick benefit. There is no such provision for us, except for the five per cent who have the proper form of insurance, income securities, or real estate.

What can we do to improve ourselves? My suggestions, in order of their importance, are:

1. Maintain and improve our own health.
2. Continue to improve our professional ability.
3. Invest in only United States Government or Canadian securities and life insurance.
4. Keep our expenses low and save as much as possible.

The first suggestion should be easy to accomplish. Being in a business for someone else's health should qualify us to care for ourselves. The second problem of improving professional ability is always foremost in our minds. By constantly watching the leading medical men in our country we should be sufficiently stimulated.

The third problem, *i. e.,* investments, is too big to be handled at this time and may perhaps be dealt with at a later date. Let us remember that even such low interest rates as Government securities and paid-up insurance will double your investment in seventeen to twenty years.

The fourth problem of saving the correct proportion of our net income is the largest fly in the doctor's ointment. Most of this paper will be devoted to this subject.

FIRST STEPS

The successful physician, as I see it, must proceed about as follows: First, acquire at least average proficiency and then find an opportunity to put this into use. It may be necessary to create the opportunity.

Every married doctor should provide well for his family. Monthly trust-fund insurance should be carried to continue this provision in case of our sudden or unexpected death. Sometimes even before the funeral the "sharks" are endeavoring to contact your widow. So it is unwise to leave all insurance benefits to be paid in a lump sum.

No doctor should borrow money unless, in advance of the loan, he is sure it can be paid when due. If possible, repay it slightly ahead of the due date, and always remind your creditor of your promptness. It gives you an excellent credit rating.

If at death you have accomplished all of this and have enough left to pay the final bills, I am sure you are entitled to at least a congratulatory epitaph.

FINANCIAL EFFICIENCY

Medicine would deteriorate if 100 per cent commercialized. However, a patient should not object to his doctor exhibiting average business ability. Indeed, the doctor himself is frequently an obstacle to his own financial efficiency. Management of our finances by average office help is usually attended by indifferent results.

More personal supervision or observation of our assistants and secretaries will usually improve public impressions and service.

COLLECTIONS

We are expected to pay our bills C. O. D. by the first, or not later than the tenth of the month. Why not? The merchant must pay the wholesaler the same way to get his discounts. Why won't the public think that way about our bills? In Los Angeles the Retail Merchants Credit Men's Association has been telling the public to "pay your doctor and dentist." That helps. But a well-trained secretary helps more by saying the right word pleasantly at the right time. Bills should always be sent out promptly on the first of the month. Any doctor bills not collected within ninety days are considered almost uncollectible by the experts in the collections office at the Retail Merchants Credit Men's Association.

Credit-rating information, similar to that obtained by our leading stores, should be secured from every new patient, and even old ones, if they have been away any length of time. There are ways

* Read before the Los Angeles Urological Society, December 7, 1937.

of getting reliable information without asking too many questions. When patients have appointments, this information may be obtained in advance.

LEGAL KNOWLEDGE

Of course, you should know the usual legal requirements of our profession. More technical knowledge we should leave entirely to a good attorney.

COÖPERATION WITH COLLEAGUES

Proper relationships with professional colleagues are very helpful. We should try to be good consultants. The days have long since passed when one's competitor's medicine was flung into the wastebasket.

PUBLIC RELATIONSHIP

Every doctor should give some thought and time to the problems of the community in which he resides. Of course, the too effusive "glad-hander" with the personality plus, will eventually pass out of the picture unless he has real medical ability. Nevertheless, if more of our competent leading physicians were in politics it would benefit our profession. They could better decide how health should be cared for and by whom.

To some members of the laity too much business or political ability exhibited by the doctor is considered knowledge unbecoming a professional man. Again, we must avoid the extremes.

MORE AND BETTER PATIENTS

Better patients are what we want, but, like sporty trout, they are more difficult to land. They are more observing than we realize. While waiting for the doctor they see the office, the nurse, hear telephone conversations and, in advance of our arrival, form opinions as to our success, efficiency, friendliness, and cleanliness. We should have our office inspected once a year by a competent interior decorator, and occasionally ask intelligent patients if they can suggest anything to improve our office and service.

When all has been said and done the patient still believes his illness is the most interesting and important matter in our office. I have been interrupted while speaking with a patient on topics of the day with, "That's interesting, Doctor, but how about my condition?"

Dignity, quiet, and guarded conversation should prevail in our office. We should be careful about expressing any sort of an opinion concerning a patient even with our most confidential assistant. Office telephone conversations overhead by the wrong person can cause us to lose money, possibly a patient, and even damage suits have resulted.

I believe that early in the career of every graduate nurse or doctor, he should be seriously ill and even operated upon. It is a great experience. It makes a difference whose horse is being gored in the bullfight.

REDUCING OVERHEAD

The Turks have an old proverb, "The world belongs to the dissatisfied." We should carefully examine our expense account each month. We must first educate ourselves to get along with less of everything. For instance, study the subdivision of our floor space and the elimination of unnecessary equipment. Necessary accessories should be kept in cabinets and off the floor. The floor should be reserved for the feet of the doctor, his patient, and the treatment table.

After we have decided on an efficient subdivision of floor space, a good carpenter can build to our order instrument and supply cabinets that will enable us to reduce our rent from 25 to 50 per cent. The workrooms we must personally supervise, but the remainder should be carefully considered by the best interior decorator that can be hired. Furniture can be built to fit our new and smaller rooms. Properly selected color schemes, with the finishing touches, will disguise the fact that we have a small office. In six to eight months we shall save enough on rent to pay for all the expense of remodeling; after that we can buy an additional baby bond every month.

A poorly arranged, inefficient office, with unsuitable help, makes work more tiresome, less remunerative, and is a distinct barrier to our best intentions and success. An office should operate smoothly; no apparent hurry, hesitance, or criticism of assistants in the presence of patients.

PERSONAL EFFICIENCY

There is no substitute for personal efficiency. The degree of perfection attained will depend on our natural inclination and correct early training by intelligent parents and teachers. Keep an efficient office and your office will keep you.

A doctor should keep his appointments. He should remember that dictators have disproved the fallacy that "The king can do no wrong."

The fewer business interests you have outside of medicine the better. Business worries or uncertainties will affect the quality of your work as a physician. The observing patient soon senses these things.

PUBLIC SPEAKING AND WRITING

There is more rapid and satisfactory progress, especially for the younger doctor, if he can speak in public and write acceptably. It sometimes happens, though, that the man with speaking ability has nothing to say and is always saying it.

For those lacking speaking and writing ability I would advise a special course for adults, accompanied with persistent practice and serious effort. Age is no barrier. Lack of urge is.

Nothing creates a more unfavorable impression upon discriminating persons than a poorly composed letter on carelessly printed, cheap stationery. A good secretary or nurse should continually endeavor to improve her ability.

OUR ASSISTANTS

Henry Ford said, "Brains are cheap and I can hire all I need." That may be so. Much can be learned by visiting the offices of our successful colleagues, both at home and in other cities. Whomever we have in our reception room is about the most important person we employ. Her qualifications in order of value are: friendliness, diplomacy, and cleanliness. The streamlined blond is not essential or, I believe, desirable. After all, we are not trying to perfect a movie set.

We should encourage our associates to have initiative. They will soon be able to make suggestions of real value, which the tired doctor will appreciate. Such a highly qualified assistant can increase our income. A good salary, plus a commission, given to an ambitious, intelligent assistant, will get the best results.

The most successful people in all walks of life are those with vision and imagination. Such an individual can help us not only by action but even do some of our thinking.

Finally, at the end of our career I can think of no better way to view our past experiences than to quote the great scientist, T. B. S. Haldane: "I am glad I lived when I did. It was a great show."

802 Pacific Mutual Building.

HEALTH SERVICE PLAN OF MUNICIPAL EMPLOYEES OF SAN FRANCISCO*

OPINION OF THE SUPREME COURT OF THE STATE OF CALIFORNIA

Opinion Handed Down on September 2, 1938

S. F. No. 16017. In Bank. September 2, 1938

Charles T. Butterworth, Thomas F. Gilligan, William P. Juzix, John Kane, Cameron H. King, Mary Maude Murphy, Martin F. Wormuth, Edwin R. Zion, and James L. Quigley, Chairman, as Members of and Constituting the Health Service Board of the City and County of San Francisco, Petitioners, vs. Harold J. Boyd, as Controller of the City and County of San Francisco, and Duncan Matheson, as Treasurer of the City and County of San Francisco, Respondents.

For Petitioners—Cushing & Cushing, Ben C. Duniway. Amicus Curiae—William P. O'Brien.

For Respondents—John J. O'Toole, City Attorney; Thomas P. Slevin, Deputy City Attorney.

For Respondent Harold J. Boyd—Frank L. Fenton, of Counsel.

Amici Curiae—Joseph McInerney, Vladimir Vucinich, Charles H. Brennan, O'Brien, Dibert & Acton; Lillian M. Wolletz.

For Board of Medical Examiners — U. S. Webb, Attorney-General; Lionel Browne, Deputy Attorney-General.

For Samuel L. Carpenter, Jr., Insurance Commissioner—U. S. Webb, Attorney-General; Neil Cunningham, Deputy Attorney-General.

BY THE COURT

This is a petition for a writ of mandate to compel respondents, the controller and treasurer of the city and county of San Francisco, to make available to petitioners certain funds deducted from the compensation of employees and teachers in San Francisco under the Health Service System established by charter amendment in 1937.

The proposal to establish a system of health service for city employees, upon payment of small, fixed monthly sums, was first submitted to a referendum vote of such employees, who declared themselves in favor of it by a vote of 7428 to 939. Thereafter the charter amendment was submitted to the electorate by the Board of Supervisors, and upon approval by vote of the people, became effective by concurrent resolution of the legislature on April 14, 1937. (Stats. 1937, p. 2782.)

* * *

The amendment adds Section 172.1 to the charter of the city and county of San Francisco. Its chief provisions are as follows:

1. A "health service system" for municipal employees is established, to be administered by a "Health Service Board." The Board consists of nine members, elected by members of the system for three-year terms at elections supervised by the registrar of voters. Each Board member gives a $10,000 bond, the premium being paid from funds of the system. (Subds. 1, 2.)

2. The "members of the system" are (1) all employees of the city and county who are members of the retirement system, and (2) all teachers and employees of the Board of Education who are members of the retirement system. Exemptions, however, are permitted as follows: (1) "Any employee who adheres to the faith or teachings of any recognized religious sect, denomination or organization and, in accordance with its creed, tenets or principles, depends for healing upon prayer in the practice of religion shall be exempted from the system upon filing annually with the Health Service Board an affidavit stating such adherence and dependence and disclaiming any benefits under the system." (2) The Board "shall have the power to exempt" any person whose annual compensation exceeds $4,500, and (3) any person "who has otherwise provided for adequate medical care." For the purposes of the first election, all employees eligible for membership are deemed members. (Subds. 1, 2.)

3. The Board has power, by a two-thirds vote of its members, "to adopt a plan or plans for rendering medical care to the members of the system, or for the indemnification of the costs of said care, or for obtaining and carrying insurance against such costs." The Board is further empowered to put the said plans into effect and administer them; to make rules and regulations for transaction of its business, granting of exemptions, and admission to the system of members; and to appoint and fix the compensation of a secretary and other employees, to hold office at the pleasure of the Board. (Subd. 3.)

4. The Board has power "to make provision for the participation in the benefits of the system by the dependents of members, retired municipal employees and tempo-

* Two newspaper items, which follow, give information concerning the background of the case at issue:

San Francisco Health System Upheld

The California State Supreme Court yesterday upheld the legality of the health service system established by San Francisco municipal employees by a 1937 amendment to the city charter.

The system has been in operation since March 15, with each employee paying $2.50 per month for membership.

The ruling was asked when Controller Boyd and City Treasurer Matheson refused to make the funds available until legality of the system was tested. . . .

* * *

High Court O. K.'s City Health Plan

Also Lauds Group Medicine

The State Supreme Court yesterday upheld the health service plan of San Francisco municipal employees and, in a companion decision, had warm words to say for group medicine.

With only one justice dissenting, the court ruled the San Francisco plan legal and ordered Controller Harold J. Boyd and Treasurer Duncan Matheson to make available to the board administering it $35,000 impounded pending the court's decision.

"There being no valid objection to the system," said the court, "it follows the city officials must perform the duties imposed on them and make the funds collected available to the board.

Validity Paramount

"The courts are not concerned with the policy or laws but only with their validity. In our opinion, the legislation violates no constitutional guarantee. There can be no question of the power of the city to establish a system of medical care for its employees or their dependents."

In passing, the court referred to the San Francisco plan as a good example of how group medical care can successfully be obtained. Of arguments that the system is unconstitutional because it compels deductions from employees pay, the court said:

No Vested Interest

"No one has a vested interest in public employment except under terms fixed by law. One of the terms of employment in this case is a provision for the health service plan."

Justice Douglas L. Edmonds, dissenting, called the plan "simply social health insurance for a restricted number of individuals who are compelled to participate."

The health service plan was authorized by the voters last year. Under its terms, $2.50 a month is deducted from the pay of 11,000 city employees, additional sums for dependents. High-salaried officials and employees with religious objections are exempted. All others must participate.

The monthly payment entitles participants to medical care from any physician on the health board's panel, under the general supervision of Dr. Walter B. Coffey, medical director for the board. Any physician may join the panel upon agreement to accept fixed fees for various medical services established by the board.

Editor's Note.—Asterisks and florets are insertions by the editor.

See also editorial comment on page 253.

rary municipal employees, provided that such participation shall be without cost to the city and county." (Subd. 3.)

5. The Board "shall determine and certify to the controller" the monthly sum to be paid by members of the system into its fund, and the controller "shall deduct said sums from the compensation of the members" and deposit them with the treasurer of the city and county to the credit and for the use of the system. "Such deductions shall not be deemed to be a reduction of compensation under any provision of this charter." The Board has control over the administration and investment of the funds, provided that all investments "shall be of the character legal for insurance companies in California." Disbursements may be made only upon audit by the controller, who exercises the same accounting and auditing powers as the charter gives him over other municipal boards, officers, and commissioners. (Subd. 4.)

6. "Members of the system shall have and possess no claim or recourse against any of the funds of the municipality by virtue of the adoption or operation of any plan for rendering medical care, indemnifying costs of said care or carrying insurance against such costs, but the claim and recourse of any such member shall be limited solely to the funds of the system. All expenses of the system shall be borne exclusively by the funds of the system and the city and county shall not appropriate or contribute funds in any manner for the purposes of the system hereby established and provided." (Subd. 6.)

7. "The term 'medical care' shall include the services of physicians, surgeons, nurses, persons licensed to treat human diseases without the use of drugs, hospitalization, medicines and appliances, and dental, optical and other medical treatments and services." All such services "shall be performed in accordance with the provisions as to professional conduct" prescribed by the state law. Members are not entitled to medical care in the municipal health and hospital facilities, except ordinary emergency service. (Subd. 5.)

8. No member is required to accept the services or medical supplies of any practitioner or hospital selected by the Board, but "subject to the rules and regulations of the Board," any member may "select of his own choice" any duly licensed physician, etc., and the Board "shall make provision for the exercise of such choice, and is hereby expressly prohibited from entering into any exclusive contract for the rendering of such services." The only restrictions on the power of choice are (1) it is "subject to the rules and regulations of the Board"; (2) the doctor or hospital chosen must render the services "pursuant to said rules and regulations"; and (3) the services or supplies must be furnished "at uniform rates of compensation to be fixed by the Board." Such rates, and any contract respecting the rendering of such services, is subject to review by, and requires the approval of the retirement board of the city and county.

* * *

Pursuant to the powers conferred by the charter amendment, an election was held on May 8, 1937, at which the petitioners were chosen as the members of the Health Service Board. They commenced performance of their duties, and after some nine months of study and consultation with professional advisers, adopted "Plan No. 1" for the rendition of medical services, and rules and regulations to carry it into effect.

Following the adoption of the plan, the Board determined upon the sum of $2.50 as the monthly deduction from compensation of members of the system, payable commencing March 15, 1938. This was certified to respondent controller, who made the deductions, but refused to make the funds available to petitioners until the legality of the charter provision was determined. Respondent treasurer likewise refused to make disbursements of funds for the same reasons. Accordingly petitioners sought relief in this court, and an alternative writ of mandate issued. Respondents filed a demurrer to the petition, and the matter is presented solely on questions of law. Counsel for respondents and various amici curiae make a number of contentions of unconstitutionality and alleged conflict with state law, and also attack the project as arbitrary and special legislation. It is a familiar observation that the courts are not concerned with the policy of duly enacted laws, but only with their validity; and in our opinion the present legislation violates no constitutional guaranties. But it may be pointed out, in this connection, that the overwhelming vote of city employees in favor of the measure was matched by the reception of the plan by the members of the medical profession. Over a thousand physicians, a majority of the licensed practitioners in the city, and nearly all of the city's hospitals, agreed to furnish services under the plan. And petitioners' brief states that among those who have joined the staffs are the president of the State Board of Health, the president of the California State Medical Association and past presidents of that association, the president of the San Francisco County Medical Society and several past presidents of that society, the president of the American College of Physicians, and leading members of the staffs of the medical schools of the University of California and Stanford University.

* * *

The first question is whether the city may by its charter provide for a regulation of this character. The answer to the question depends on whether the establishment of the health service system is a "municipal affair."

Under the provisions of Article XI, Section 8, of the California Constitution, a city or city and county having a freeholders' charter adopted pursuant to said section has the power of "municipal home rule." The section provides: "It shall be competent in any charter framed under the authority of this section to provide that the municipality governed thereunder may make and enforce all laws and regulations in respect to municipal affairs, subject only to the restrictions and limitations provided in their several charters, and in respect to other matters they shall be subject to general laws." In the early stages of municipal home rule in California, the charter prevailed only where it expressly covered the particular power exercised. Under the liberalizing constitutional amendment of 1914, the charter is not a grant of power but a restriction only, and the municipality is supreme in the field of municipal affairs even as to matters on which the charter is silent. The history of the movement has been fully covered in decisions and law review comments, and need not be repeated here. (See *Bank* vs. *Bell,* 62 Cal. App. 320; 15 Cal. L. Rev. 60; 11 Cal. L. Rev. 446.)

The purpose of the constitutional provisions was to make municipalities self-governing and free from legislative interference with respect to matters of local or internal concern. "It was to enable municipalities to conduct their own business and control their own affairs to the fullest possible extent in their own way. It was enacted upon the principle that the municipality itself knew better what it wanted and needed than the state at large, and to give that municipality the exclusive privilege and right to enact direct legislation which would carry out and satisfy its wants and needs." (*Fragley* vs. *Phelan,* 126 Cal. 383, 387.) No exact definition of the term "municipal affairs" can be formulated, and the courts have made no attempt to do so, but instead have indicated that judicial interpretation is necessary to give it meaning in each controverted case. The comprehensive nature of the power is, however, conceded in all the decisions, and it is recognized that it is not fixed but fluctuates in scope, and that changes in conditions make necessary new and broader applications thereof. (See *Bank* vs. *Bell,* supra, 15 Cal. L. Rev. 60; 11 Cal. L. Rev. 94, 446.)

In applying these principles, the following activities, similar to that under consideration here, have been held to be municipal affairs and hence within the city's legislative power: Providing for the compensation of a municipal officer or employee, irrespective of whether the duties of the office are exacted by the charter or imposed by state law. (*Trefts* vs. *McDougald,* 15 Cal. App. 584, 587; *Popper* vs. *Broderick,* 123 Cal. 450.) Providing for removal of municipal officers. (*Scheafer* vs. *Herman,* 172 Cal. 338.) Providing for pay of municipal employees while absent on sick leave. (*Jackson* vs. *Wilde,* 52 Cal. App. 259.) A pension or retirement system for municipal employees. (*Klench* vs. *Board of Pension Fund Commissioners,* 79 Cal. App. 171, 179; *Richards* vs. *Wheeler,* 10 Cal. App. [2d] 108, 111.) Supervision of sanitary conditions in a city, and provision for the health of its inhabitants, by establishment of a local board of health. (*People* vs. *Williamson,* 135 Cal. 415, 421.) Protection of property and lives through the licensing and regulation of a private

patrol system. (*In re Hitchcock,* 34 Cal. App. 111.) (See, also 15 Cal. L. Rev. 60.)

There can be no question, under these authorities, of the power of the city to establish a system of medical service for its employees or their dependents. Proper medical attention, freely available to all such employees and such dependents, should have a direct and beneficial effect on their health, and, therefore, their efficiency. If a pension or retirement system, or provision for sick-leave payments at the expense of the municipality is within the municipal power, the present plan, entirely self-supporting, and having a tendency to decrease sickness and lessen the expense of sick leave must equally be so.

* * *

With the municipal power to act in this field established, there remains only to consider briefly the specific details in which the plan is said to be invalid.

First, it is contended that the charter sets up no standard for the expression "adequate medical care," in its provision for exemption of those who are already provided with such care. The contention is made that the lack of criteria for determining this question leaves the matter within the uncontrolled discretion of the Board, which may destroy the whole plan by broadening the grounds of exemption, or may discriminate among the employees. It may be observed at the outset that at most this argument challenges the validity of this particular exemption provision alone, and is in no sense an attack on the system itself. The system is applicable to the great majority of the city's employees, and the comparatively few exemptions could be severed without destroying the general plan. (See *Baeon Service Corp.* vs. *Huss,* 199 Cal. 21; 22 Cal. L. Rev. 228.) But in truth the term is clear enough. As defined in subdivision 5 of the charter (see supra), it refers to the treatment by licensed doctors, etc., and in view of the great complexity and rapid changes in medical science it is neither desirable nor possible to set forth in a statute any detailed outline of particular services. This is one of the innumerable situations in which only the broadest type of standard may be stated, and the details must be left to the expert administrative board or officer chosen to carry out the legislative direction. Terms equally general have been frequently upheld against objections of uncertainty, and standards equally broad have been sustained against the objection of undue delegation of legislative power. (See *People* vs. *Globe Grain & Milling Co.,* 211 Cal. 121; *Tarpey* vs. *McClure,* 190 Cal. 593; *People* vs. *Monterey Fish Products Co.,* 195 Cal. 548; *Dominguez Land Corp.* vs. *Daugherty,* 196 Cal. 468; 19 Cal. L. Rev. 448; 15 Cal. L. Rev. 408.) The suggestion that the Board, chosen by vote of members of the system, might, in disregard of the purposes for which it was created and in defiance of constitutional limitations, exercise its delegated powers in a discriminatory manner, is fully answered by numerous decisions of the courts. It is to be presumed that the Board will exercise its powers in conformity with the requirements of the Constitution; and if it does act unfairly, the fault lies with the Board and not the statute. Constitutional guaranties against arbitrary and discriminatory action are read into the law, and the courts will compel administrative officials to respect them. (*People* vs. *Globe Grain & Milling Co.,* supra; *Gaylord* vs. *Pasadena,* 175 Cal. 433.)

* * *

It is next contended that the amendment makes an unconstitutional delegation of legislative power to the Board to perform municipal functions, in violation of Article XI, Section 13, of the California Constitution. But this section merely prohibits the legislature from interfering with the municipalities in respect of their municipal affairs, and has no application to the appointment of boards or officers pursuant to valid charter provisions. (*In re Pfahler,* 150 Cal. 71, 87.)

* * *

It is suggested that the charter provision is in conflict with the State Insurance Code in that it authorizes what is in effect an insurance business without a certificate of authority from the insurance commissioner; and it is contended in this connection that the subject of insurance is of state-wide concern and not a municipal affair. Nothing of substance is contained in this last statement, for though insurance may be a matter of general concern, the health and efficiency of city employees is a municipal affair; and a plan established by charter to safeguard the health, peace of mind and working efficiency of such employees is validly applied to them, though it might be entirely improper if applied to objects beyond the scope of municipal power. A still more obvious answer to counsel's suggestion is that the Insurance Code deals with the private business of insurance, and neither expressly nor impliedly purports to regulate governmental activities of municipalities. It is, of course, a well-settled doctrine that general words in a statute which might have the effect of restricting governmental powers are to be construed as not applying to the state or subdivisions. (*Estate of Miller,* 5 Cal. [2d] 588; *Balthasar* vs. *Pacific Electric Ry. Co.,* 187 Cal. 302.) These same considerations dispose of the further contention that the charter permits the Board to practice medicine in violation of the State Medical Practice Act.

* * *

It is next argued that the charter denies due process of law in providing for a compulsory deduction in an uncertain amount from the salaries of municipal employees. A conclusive answer is that no one has a vested right in his public employment except in so far as the right is conferred by statute or other valid regulation; that the employment is accepted under the terms and conditions fixed by law; and that one of the terms of the employment in the present case is the provision for the benefits of the health service system at the charge imposed therefor. The charter governs the salaries of city employees; by the amendment to the charter in force at the time the municipal salaries were fixed for the current fiscal year, the deduction was authorized and made accordingly. It is well settled that public employees have no vested right in any particular measure of compensation or benefits, and that these may be modified or reduced by the proper statutory authority. (*Pennie* vs. *Reis,* 80 Cal. 266, 269; *Snell* vs. *Byington,* 2 Cal. App. [2d] 127; *Casserly* vs. *Oakland,* 6 Cal. [2d] 64.) If salaries can be reduced, it is certainly clear enough that compensation provisions may be modified by substituting for a fraction thereof the valuable protection of comprehensive medical service. It is immaterial that the amount of the deduction is not limited to a stated sum; it is limited to the amount necessary to carry out specific purposes. Obviously, the Board must be given some leeway in fixing the amount in accordance with its experience; and the nature of the plan, in the light of economic studies, is such that the amounts will always be small in relation both to the total salaries and the benefits received. A safeguard against excessive exactions is found in the democratic control over the elective members of the Board; and doubtless any attempt by the Board to deprive employees of the substantial benefits of their compensation would be ground for redress in the courts.

It should not be forgotten, in this connection, that the deduction herein considered has none of the compulsory features of a tax, for no one is compelled to pay anything, unless he voluntarily seeks the public employment under the terms and conditions which the law imposes. (See *McAuliffe* vs. *Mayor,* 155 Mass. 216, 29 N. E. 517.)

* * *

The further contention is made that the exemptions under the charter constitute a denial of equal protection of the law; but a mere glance discloses that the classification is reasonable and proper. For example, the power to exclude those receiving salaries of over $4,500, a small fraction of the employees, is based upon the reasonable legislative determination that such persons may be able to provide themselves with sufficient medical care. The exemption of those who rely on healing by prayer is designed to avoid interference with the free practice of religion. And the exemption of those who already have adequate medical care avoids the arbitrary imposition of the facilities of the system upon those who already have provided for equal facilities from another source.

* * *

The next contention is that the plan cannot legally include the school teachers and others employed by the San Francisco School District, which, though it covers the same territory as the city and county, is a separate entity. This contention, if sustained, would only exclude this group of employees from the benefits of the system without affect-

ing the validity of the plan itself; and the objection could only be properly raised by those whose rights were invaded by inclusion in the system. (See *People* vs. *Perry*, 212 Cal. 186.) We are satisfied, however, that the objection is, on the merits, unsound. The school system has been held to be a matter of general concern rather than a municipal affair, and consequently is not committed to the exclusive control of local governments. But the cities may make local regulations beneficial to and in furtherance of the school system, provided that these provisions do not conflict with the general law. (*Whitmore* vs. *Brown*, 207 Cal. 473; *Esberg* vs. *Badaracco*, 202 Cal. 110; *Anderson* vs. *Board of Education*, 128 Cal. App. 514.) The power thus to regulate the schools by charter provisions is in fact recognized and declared in the State School Code, Section 5.405, which declares: "Nothing in this part shall be construed so as to repeal or negate any provisions concerning employees of school districts contained in the charter of any city, county or city and county heretofore or hereafter adopted and approved in conformity with Article XI of the Constitution of this State." Certainly a regulation designed to promote the health and efficiency of teachers is in furtherance of the objects of the school system, and it does not conflict with any general law. The state law establishes teachers' tenure, but the charter does not affect tenure. It only provides for a deduction from the monthly salary, and it has been expressly held in this state that the tenure law does not carry with it any assurance against change in salary. Hence, just as in the case of other municipal employees, a reduction or modification of compensation impairs no vested rights. (*Abraham* vs. *Sims*, 2 Cal. [2d] 698; *Emerson* vs. *Board of Trustees*, 23 Cal. App. [2d] 432; *Hodge* vs. *Board of Education*, 22 Cal. App. [2d] 341.)

* * *

Amicus curiae makes the suggestion that the plan interferes with the freedom of religion on the ground that it provides an exemption for employees believing in healing by prayer, and requires the employee to disclose his religion by filing of the affidavit making the exemption claim. It seems unnecessary to point out that there is no interference with the practice of religion in the mere disclosure of a particular faith to a board which has nothing to do with its practice. In no way does the charter permit the slightest interference with the practice or belief in any religious faith. (See *Hamilton* vs. *Regents of University of California*, 293 U. S. 245.)

* * *

Finally, we are told that some of the rules and regulations and practices of the Board are, or may be arbitrary or discriminatory with respect to particular individuals. There is no reason to consider such a contention at this time, for the only issue before us is whether the charter amendment and the plan adopted thereunder are valid. If so, the respondents must release the money to the Board in order that it may carry out its duties. If in the performance thereof the rights of any individual are infringed, the regular procedure of the courts is available to test the action. It is premature and irrelevant to deal at this time with speculative future acts of the Board which involve no present invasion of private rights. (See *People* vs. *Globe Grain & Milling Co.*, supra.)

* * *

There being no valid objection to the system and plan herein considered, it follows that respondents must perform the duties imposed upon them and make available to petitioners the funds collected.

Let the writ issue as prayed for.

I concur in the judgment. HOUSER, J.

* * *

Dissenting Opinion

The charter provision of the city and county of San Francisco which is attacked in the present proceeding provides, in effect, for compulsory health insurance of municipal employees. It allows the Health Service Board, a private organization over which the city has no control, to order the city controller to deduct an amount to be determined by it from the compensation of each employee of the city and deposit such sum "with the treasurer of the city and county to the credit and for the use of the system." Certain persons shall be and others may be exempted from this requirement. The money taken from the employees' salaries may be paid out by the treasurer only upon "audit by the controller and the controller shall have and exercise the accounting and auditing powers over the funds of the system which are vested in him by this charter with respect to all other municipal boards, officers, and commissions."

* * *

The city attorney contends that the amendment grants unlawful delegation of power to the Health Service Board. He relies upon Section 13 of Article XI of the Constitution of California, which provides, in part, that "the legislature shall not delegate to any special commission, private corporation, company, association, or individual any power to make, control, appropriate, supervise or in any way interfere with any county, city, town or municipal improvement, money, property or effects. . . ." The legislature in approving the charter amendment, in effect delegated to an association of individuals the power to make, control, appropriate and supervise certain property interfering with the operation of the municipality. This association, created neither by election of the city's voters nor appointment by its officers, is given the authority to determine the amount of money to be taken by the controller from the salaries of the employees for the purpose of carrying on a nonpublic engagement, and further permits the use of the facilities of the offices of the registrar and treasurer for the purpose of administering that which is unquestionably not of a general public character.

If, notwithstanding the constitutional provision, the Health Service Board can lawfully carry out the plans it has undertaken, then innumerable organizations can be created for the purpose of carrying on coöperative enterprises of various kinds. It is said that the successful operation of the health service will increase the employees' peace of mind. Undoubtedly, many municipal employees would feel that they had more social security if they could purchase groceries through a coöperative organization. Their economic status would be improved if they could secure housing through group purchasing power. But to set up such organizations with funds compulsorily taken from each employee's salary through the machinery of the city government constitutes, in my opinion, a violation of the constitutional provision.

* * *

The city attorney also claims that the health service plan is not a municipal affair, but, on the contrary, is nothing more than a private engagement affording an opportunity for certain employees of the city and county to procure stated kinds of medical care for an amount to be fixed by the board selected by the employees to run the system. Such a program, he says, does not concern the government of the municipality. In *Bank* vs. *Bell*, 62 Cal. App. 320, the court defined "a municipal affair" as follows: "In defining a 'municipal affair' it has been said that 'the true test is that which requires that the work should be *essentially public and for the general good of all of the inhabitants of the city*. It must not be undertaken merely for gain or for private objects. Gain or loss may incidentally follow, *but the purpose must be primarily to satisfy the need, or contribute to the convenience of the people of the city at large.* Within that sphere of action, novelty should impose no veto (*Sun Printing etc. Assn.* vs. *New York*, 8 App. Div. 230)." In *Fragley* vs. *Phelan*, 126 Cal. 383, 387, it was held that " 'municipal affairs,' as those words are used in the organic law, refer to the internal business affairs of a municipality." See, also, *In re Hitchcock*, 38 Cal. App. 111, 114.

* * *

All of the decisions construing the phrase "municipal affair" define it as referring to those things which are so intimately connected with the government of a municipality as to affect all of its people, or as including a city's right to compensate employees in addition to the amount of wages paid. But the health service plan neither affects all of the inhabitants of the city nor is it limited to employees. It includes dependents of employees related by consanguinity or marriage, retired city employees, retired school teachers, members of the Board of Education and employees of the public school system. Medical care is to be given by private physicians having no contractual relation with the city but acting solely for the Health Service Board, over

which the city has no control. "Members of the system shall have and possess no claim or recourse against any of the funds of the municipality by virtue of the adoption or operation of any plan for rendering medical care . . . but the claim and recourse of any such member shall be limited solely to the funds of the system." It is, therefore, obvious that the plan has nothing to do with the public health, security, or general welfare. It is simply social health insurance for a restricted group of individuals who are compelled to participate in it.

* * *

For another reason, at least a portion of the charter provision is invalid. Section 172.1 of the charter requires all teachers to become members of the system. Membership in the system is made compulsory. School teachers are not employees of the city and county of San Francisco but of a school district, a governmental entity entirely separate from the city and county. The teachers derive their credentials from the state, and their compensation from funds of the school district and the state. Under Section 8 and 8½ of Article XI of the Constitution, a municipality is strictly limited to the enactment of laws in respect to "municipal affairs." The courts have frequently declared that the public school system of the state is not a "municipal affair" but a "state affair," a matter of general and not local concern. (*People* vs. *Martz*, 2 Cal. [2d] 136, 138; *Gerth* vs. *Dominguez*, 1 Cal. [2d] 239, 242.)

* * *

I am of the opinion that the writ should be denied.

EDMONDS, J.

LEGAL RIGHT OF A CORPORATION TO PRACTICE MEDICINE*

OPINION OF THE SUPREME COURT OF THE STATE OF CALIFORNIA

Opinion Handed Down on September 2, 1938

S. F. No. 15690. In Bank. September 2, 1938

People of the State of California, ex rel. State Board of Medical Examiners, Plaintiff and Respondent, vs. Pacific Health Corporation, Inc., Defendant and Appellant.

For Appellant—Knight, Boland & Riordan.

For Respondent—U. S. Webb, Attorney-General; Lionel Browne, Deputy Attorney-General.

Amici Curiae—Hartley F. Peart, Howard Hassard.

Amicus Curiae for the State Bar of California—Gilford G. Rowland.

BY THE COURT

This is an appeal from a judgment in *quo warranto* against defendant holding its activities violative of the California Medical Practice Act (now Sections 2000-2496 of the Business and Professions Code).

The facts are stipulated. Defendant Pacific Health Corporation, Inc., is a corporation organized under the general corporation law of the State of California, with its principal place of business in San Francisco. Upon application of persons in good health, the defendant issues a contract by the terms of which defendant undertakes to pay for services rendered by physicians, hospitals, ambulance and medical laboratories under certain circumstances, and the applicant pays the required sum or premium therefor. When a contract holder becomes sick or is injured, defendant advises him from whom these services are to be obtained, that is, the physician, hospital or ambulance available to him. After the services are rendered, defendant pays the charges. Defendant keeps a list of physicians and surgeons approved by it, and to obtain the benefits of the service the contract holders must, save as to emergency expenses not exceeding $50, accept a doctor from the list.

Defendant is a stock corporation, operated for profit. It advertises its services and solicits the public for purchase of its contracts, paying commissions to its soliciting agents. The money collected from contract holders is paid into the general fund, and this, together with the capital and surplus, is invested. The charges for medical services are paid out of the general fund and income from investments.

* * *

Upon these facts the lower court concluded that defendant was illegally engaged in the practice of medicine, in excess of its corporate rights, powers, and franchises. It was ordered that defendant be excluded from such practice, and that its articles of incorporation be amended to conform to the decree. We are in accord with the court's conclusion.

* * *

The issue presented herein is not new, and has been considered in this state by recent cases which are controlling. It is an established doctrine that a corporation may not engage in the practice of such professions as law, medicine or dentistry. (*People* vs. *Merchants' Protective Corp.*, 189 Cal. 531; *Painless Parker* vs. *Board of Dental Examiners*, 216 Cal. 285; *Pacific Employers' Ins. Co.* vs. *Carpenter*, 10 Cal. App. [2d] 592; *Benjamin Franklin Life Assur. Co.* vs. *Mitchell*, 14 Cal. App. [2d] 654; *People* vs. *United Medical Service*, [Ill.] 200 N. E. 157, 103 A. L. R. 1229; see notes, 25 Cal. L. Rev. 91; 10 So. Cal. L. Rev. 329; 30 Ill. L. Rev. 533.) This doctrine is not challenged by defendant, which seeks to distinguish its activities from those previously held to constitute illegal practice of medicine. It is stated that defendant does not itself undertake to perform medical services, but merely to furnish competent physicians; that the contracts do not contemplate that services shall be performed at its offices, but elsewhere; and that the doctors are not employed by defendant on a salary basis, nor directed by defendant, but are compensated for actual services after they are rendered. Defendant's theory is that the doctors are independent contractors, and that this fact absolves it of the charge of practicing medicine.

We are unable to agree that the policy of the law may be circumvented by technical distinctions in the manner in which the doctors are engaged, designated or compensated by the corporation. The evils of divided loyalty and impaired confidence would seem to be equally present whether the doctor received benefits from the corporation in the form of salary or fees. And freedom of choice is destroyed, and the elements of solicitation of medical business and lay control of the profession are present whenever the corporation seeks such business from the general public and turns it over to a special group of doctors. As the court said in *Pacific Employers' Ins. Co.* vs. *Carpenter*, supra, 10 Cal. App. (2d) 601: "But we need not quibble here over the use of terms, as it is immaterial whether the appointed practitioners are termed employees, agents or appointees of the petitioner. The fact remains that petitioner's agreement was to furnish, in consideration of the premium paid by the insured, the services of doctors and dentists who were to be appointed, engaged, hired or employed by petitioner for the purpose of furnishing such services. Any such agreement is clearly condemned as unlawful and against public policy by the authorities above cited."

The foregoing case is so similar in its facts to the instant case as to be conclusive on the issue before us. (See, also, *Benjamin Franklin Life Assur. Co.* vs. *Mitchell*, supra.)

Defendant suggests that the Medical Practice Act should be strictly construed so as not to prohibit its activities; but this argument ignores the basic policy of the law, of which the statute is merely declaratory, against corporate practice of the learned professions, directly or indirectly. (See authorities cited supra.)

Although, as we have already pointed out, defendant does not challenge but fully concedes that corporations cannot practice the learned professions, the procedure which it seeks to defend is within the prohibition of this doctrine. To avoid this result, defendant launches into a discussion of the effect of an adverse decision upon other organizations and activities. Our attention is called to certain data from medical and lay sources in support of the movement for group medicine and health insurance, and we are told that a decision against defendant will outlaw all fraternal,

* In the case of *People* vs. *Pacific Health Corporation*, the special question involved was the right of the Pacific Health Corporation, if any, to furnish the services of physicians to its members. The court in a 4-3 decision decided in favor of the people of the State of California and against the Pacific Health Corporation. In this case Mr. Hartley F. Peart and Mr. Howard Hassard appeared as "friends of the court." The majority opinion was concurred in by Justices William H. Langdon, Jesse W. Curtis, J. Emmet Seawell, and John Shenck.

Editor's Note.—Asterisks and florets are insertions by the editor.

See also editorial comment on page 253.

religious, hospital, labor and similar benevolent organizations furnishing medical services to members. We have given careful consideration to this argument and we find it wholly unconvincing.

The question of the effect of this decision upon any other organizations is not squarely before the court, and the information in the record as to their character and activities is meager and unsatisfactory. If we undertook to determine their legality in this proceeding, in which they are not represented, our decision would have no binding force. But it should be pointed out that the fear of applying the holding of this case to such philanthropic associations as those mentioned does not exist in the minds of the directors thereof, nor has it been suggested that the public authorities contemplate any attack on them. This illusory apprehension is expressed by defendant alone, in an attempt to bolster up its case by bringing it within the general class of associations furnishing medical or health benefits which have been tacitly approved for generations. But a most obvious and, to us, a fundamental distinction must be made between defendant and these other institutions. In nearly all of them, the medical service is rendered to a limited and particular group as a result of coöperative association through membership in the fraternal or other association, or as a result of employment by some corporation which has an interest in the health of its employees. The public is not solicited to purchase the medical services of a panel of doctors; and the doctors are not employed or used to make profits for stockholders. In almost every case the institution is organized as a nonprofit corporation or association. Such activities are not comparable to those of private corporations operated for profit and, since the principal evils attendant upon corporate practice of medicine spring from the conflict between the professional standards and obligations of the doctors and the profit motive of the corporation employer, it may well be concluded that the objections of policy do not apply to nonprofit institutions. This view almost seems implicit in the decisions of the courts, and it certainly has been the assumption of the public authorities, which have, as far as we are advised, never molested these organizations.

The other question raised by defendant's proffered materials is whether the time has come, as indicated by the movement for health insurance and group medicine, to reverse the long-settled policy against corporate medical practice and declare it legal and proper. A simple answer would be that the few extracts from the opinions of writers which we find in the briefs furnish us with no evidence whatsoever of a widespread change in social viewpoint sufficient to repudiate the existing law of practically all the states. All that we have before us is the proof of a controversy, which has raged for years, between medical men, sociologists and others, as to the future course of medical practice. The desirability of present methods and the suggested reforms, including various kinds of insurance and group treatment, are hotly debated. (See 25 Cal. L. Rev. 91, 93.) Public policy may change, and doubtlessly where statutes do not cover the field, the court may follow such changes, but the court must, in such case, declare the *public* policy, the social view of people generally, and not merely its own private choice among hopelessly conflicting views of desirable reform of settled practices or principles in this field. In the present circumstances there can be no true declaration by this court that a change in social viewpoint now requires the abandonment of the rule against corporate practice of medicine. Such a drastic change should come from the legislature, after the full investigation and debate which legislative organization and methods permit. Though certainly aware of the controversy, and with presumed knowledge of our decisions preventing corporate practice (see supra), the legislature thus far has not acted, and until it does we deem it proper to follow the existing law. (See *Pacific Employers' Ins. Co.* vs. *Carpenter,* supra, 10 Cal. App. [2d] 602.)

We might observe, in conclusion, that an admission of the desirability of some form of health insurance or group medicine by no means requires approval of the activities of defendant. It is perfectly possible to bring adequate medical service to the vast numbers of people who now can ill afford it by some means which will protect both the profession and the public from the evils of corporate control of the practitioner. An example is found in the system adopted by the city and county of San Francisco for the furnishing of medical service to its employees, approved by us in *Butterworth* vs. *Boyd,* S. F. 16017, this day filed. (Ante, p. ——.)

The future of group medicine would seem to lie either in such well-considered plans, submitted to and adopted by the proper legislative authority, or in a carefully regulated statute setting forth the means by which private organizations may offer such services.

The judgment is affirmed.

* * *

Dissenting Opinion

This case presents only two questions for decision: (1) Does the plan followed by the appellant in providing health service for its contract holders violate the provisions of the Medical Practice Act, and (2) if not, is its plan violative of public policy? I find nothing in the Act which expressly or by implication prohibits a corporation from hiring a physician regularly licensed to practice in this State to care for its employees or members.

The decision to the contrary relies upon the cases of *Painless Parker* vs. *Board of Dental Examiners,* 216 Cal. 285; *People* vs. *Merchants' Protective Corp.,* 189 Cal. 531; *Pacific Employers' Ins. Co.* vs. *Carpenter,* 10 Cal. App. (2d) 592; and *Benjamin Franklin L. Assn. Co.* vs. *Mitchell,* 14 Cal. App. (2d) 654. The two appellate court decisions are directly in point in support of respondent's position. The opinions in those cases clearly hold that a health insurance plan similar to that involved in the present case is violative of the Medical Practice Act and of public policy, in that it contemplates and provides for the practice of medicine by a corporation, although it may be noted that the Benjamin Franklin case was decided by a divided court. The Painless Parker case involved the unlawful practice of dentistry by a corporation in violation of the Dental Practice Act, a statute substantially different from the Medical Practice Act in that it expressly prohibited the practices there involved. There can be no doubt, and appellant concedes, that within certain constitutional limitations the legislature may declare that the employment of physicians by lay persons or corporations constitutes the practice of medicine. The Dental Practice Act did so declare. The Medical Practice Act contains no such provision, and the appellant expressly excludes dental care from its contracts.

The Merchants' Protective Corporation case is likewise not controlling. The evidence in that case showed that the corporation contracted to hire attorneys to render legal advice to members of the corporation. It attempted to justify its action, according to the opinion of the court, upon the ground that "it is merely an agency for the bringing of attorneys and clients together and is not itself engaged in practicing law." It was held that this contention was not supported by the facts in that under its articles and contracts the corporation itself, through attorneys, purported to give legal advice. The implication of the opinion is that if the corporation were in fact an agency, which for a fee brought attorneys and clients together, its activities would have been within the law.

The present case involves a factual and legal situation fundamentally different from the contract for legal services. Here the corporation is acting as an agency for bringing the doctor and the patient together. In addition, it underwrites or insures the cost of such medical care. The doctor, in caring for the insured, is not rendering medical care on behalf of the corporation. When the doctor starts treatment of the member, the relationship of doctor and patient, with all that that relationship implies, is created. The situation is legally no different from that where A (who may be a layman or a corporation) secures medical services for B from C, a duly licensed physician, C agreeing to look solely to A for his fee. Could it be contended that A is practicing medicine? I think not. As I read the articles of incorporation and the contracts here involved, the corporation does not directly or indirectly agree to perform any medical service; it merely agrees to pay for it when rendered by persons duly licensed to render it. It is true that the member does not have unlimited choice in the selection of a doctor, and that he must select a physician approved by the corporation. But there is nothing in the stipulated facts indicating that the corporation directly or

indirectly supervises the doctors in the professional service rendered the member.

There are cases from this state and elsewhere recognizing that, in the absence of a statute providing to the contrary, a corporation or a layman may lawfully employ a doctor to care for its patrons or members. These cases hold that practices substantially similar to those here involved do not constitute the unlawful practice of medicine. In *Renwick* vs. *Phillips,* 204 Cal. 349, it was held that a storekeeper may employ a person licensed under the Medical Practice Act to treat his patrons. In that case the Board of Medical Examiners had revoked the license of Doctor Renwick upon the ground that he had aided and abetted one Roy Finney, a lay person, to practice medicine. This court stated: "The petitioner (Renwick) was a licensed chiropodist. The said Roy Finney conducted a chiropodist parlor, equipped with a variety of foot remedies and appliances which he prepared and sold there. He employed the petitioner and respondent herein to act as a chiropodist in connection with his said establishment and to give such treatment and perform such operations as only could be done by the holder of a regular chiropodist's license so to do. In so far *there was nothing illegal or unprofessional in the relations or conduct of Doctor Renwick in his connection with said Finney at the latter's place of business.* . . ." This decision was written by Justice Richards, who six years before had written the Merchants' Protective Corporation case. In *Pilger* vs. *City of Paris Dry Goods Co.,* 86 Cal. App. 277, it was held that "there can be no doubt that a corporation may undertake to furnish the services of a competent physician or the services of a competent chiropodist." In *State Electro-Medical Institute* vs. *State* (Neb.), 103 N. W. 1078, the supreme court of Nebraska held that, although a corporation could not practice medicine, it could contract with its members to furnish them with medical care. The court stated: "The intention of the law is that one who undertakes to judge the nature of a disease, or to determine the proper remedy therefor, or to apply the remedy, must have certain personal qualifications; and, if he does these things without having complied with the law, he is subject to its penalties. Making contracts is not practicing medicine. Collecting the compensation therefor is not practicing medicine within the meaning of this statute. No professional qualifications are requisite for doing these things." See, also, *State Electro-Medical Institute* vs. *Platner* (Neb.), 103 N. W. 1079; *State* vs. *Lewin* (Mo.), 106 S. W. 581.

Respondent and amici curiae, appearing on its behalf, urge that the plan of the appellant violates public policy. But if the policy were as contended by respondent, it would be clearly stated in the pertinent statutes. This the legislature has not seen fit to do. In recent years the subjects of health insurance and group medicine have been the frequent source of discussion and investigation, and both lay and professional opinion concerning them is sharply divided. The need for some such service, particularly in the lower income brackets, is conceded by all parties to the controversy. The courts, in the absence of legislation, should not on the ground of public policy place a stumbling-block in the way of working out this problem. It is not a proper function of the courts to thus block the natural growth of social and economic processes.

The attempt of lay associations or corporations to retain doctors for the purpose of rendering medical services to their members in return for the payment of dues or a premium is by no means a modern development. Judicial notice can be taken that for many years fraternal, employee, and hospital associations, and various medical-hospital services have been rendering such services to their members through doctors employed by them. Respondent does not question the propriety of their activities. If this court should hold that the plan adopted by appellant is unlawful on the ground urged by respondent, that is, that it permits a corporation to unlawfully practice medicine, it would inevitably and necessarily follow that all of such associations are, likewise, unlawfully practicing medicine. Such a conclusion, adversely affecting the interests of thousands of individuals, should only be reached if compelled by statutory enactment or by clear public policy. Neither is present in the instant case.

It is claimed that the medical profession will be commercially exploited if private corporations interested solely in a profit are permitted to engage in activities such as are here involved. If that is an evil the solution rests not with the courts, but with the legislature. It might be added that under the Workmen's Compensation Act insurance companies through doctors are daily rendering medical service to thousands of injured employees to the apparent satisfaction of all concerned.

The judgment should be reversed.

EDMONDS, J.

We concur:
WASTE, C. J.
HOUSER, J.

THE LURE OF MEDICAL HISTORY†

THE TALMUD A MEDICAL LABORATORY*

By ABRAHAM BERNSTEIN, M.D.
San Francisco

THROUGH many centuries ancient Talmudic[1,9] writers studied, thought, argued, and wrote. Among these writings, a statement is found which clearly indicates that during the time of the kings[1,2] (2665 B. C.) the first temple already contained books devoted solely to medicine. Presumably these books were later destroyed by order of one of the rulers,[1,2] (King Ezekiel), because the people did not look to God for help, but rather consulted priests, who studied these books. However, an organized system of medical science as such is not found in the Talmud;[1,9] here and there, there are only brief statements and notes regarding the treatment of individual diseases. These statements are of a nature that suggests a considerable familiarity of their authors with the the workings of the human body. These statements, too, were merely incidental to the discussion of certain laws, rites, and religious rituals. But for all this, the Talmud[1,9] fostered medical science as the only salvation of the race.

TALMUD, IN GENERAL RELATION TO MEDICINE

The maxims of the Talmud[1,9] are evidence of this, as for example: "Honor the chakim (physician) before you need him." Another saying, "If there are two healers in a town, one takes money and the other not, entrust better your sick body under the care of him who demands pay for his healing."

The rabbis held the physician in the highest respect, and considered his services so indispensable to the community that they forbade living in a city where there was no physician. Medical studies were carried on through observations of clinical reactions, through experimentation and autopsies. Rabbi Jose ben Chalafta was known as "the experimenter." He was interested in comparing the action of herbs and different chemicals on animals in relation to human beings.

To further the interests of medicine, autopsies could be ordered by a court of law, as could also

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany Department, and its page number will be found on the front cover.

* From the Department of Obstetrics and Gynecology, University of California Medical School.

Read before the San Francisco County Medical Society, Section on History, January 11, 1938.

the exhuming of a body; while quackery was prevented by the system of licensing physicians.

The familiarity of the rabbis with anatomy, physiology, bacteriology, and surgery is most surprising. The descriptions of the bones, muscles, tendons, circulatory, digestive, respiratory, and generative organs, in many instances lack only the modern nomenclature to be acceptable by present standards.

PHYSIOLOGY

The nature of the secretory glands—every one of which, they said, secretes a fluid peculiar to itself—was recognized by them two thousand years before Beaumont[7,8] experimented on Alexis St. Martin. The real function of the stomach, and the part which the intestines play in the digestion of food, was ascertained by them twenty-one hundred years before Pavlov[7,8] published his discoveries to the medical world. More than two thousand years before Morgagni,[8] the father of modern pathologic-anatomical research, the rabbis enumerated 140 pathological conditions. While Galen[4,6] still considered the thoracic cavity as filled with air and thought such a condition necessary for normal breathing, the rabbis of the Talmud[1,9] said that a pneumothorax is fatal. At a time when the function of the brain and that of the spinal cord were but imperfectly understood, the Talmud[1,9] considered the brain, which it described as having two linings, a tender (pia mater) and a tough (dura mater), as being the seat of the reasoning faculties, while upon the integrity of the spinal cord depends all the movements of the body. The heart, in which the auricles and ventricles were described, is the organ upon which the life of all other bodily organs depends; the liver is the laboratory for blood, the pancreas is an accessory of the liver; and respiration was compared to the process of burning, so that expired air is incapable of sustaining life. The difference between the peritoneum and the extraperitoneum was noted and, contrary to the current opinion of the time, the arteries were filled, not with air (pneuma), but with blood (dam). Moreover, the danger of eating meat or drinking milk of tuberculous animals was nowhere mentioned in the Greek writings, but the Talmud[1,9] fully recognized it. It even differentiated between tuberculous caverns and bronchiectasis, something that is not to be found in all literature before, or at the time of the Talmud.[1,9,10]

BACILLI IN THE TALMUD

As regards infectious and contagious diseases, we know, of course, that the Bible already contains quarantine laws.

The Talmud[1,9,10] ascribed all ailments of the human race to certain little "dangerous ones," termed "shedins" (destroyers). It was further stated that "if permission could be given to the naked eye to see these 'shedin,' no man could exist." Please bear in mind that no microscopes were in existence at that time! It is too bad that the "shedin" were not termed "bacilli," for then our germ theory of disease would indeed have been recognized at an early date.

These "shedin" were divided into four classes: (1) those of the air; (2) those of the water and grease liquid; (3) those of animals; (4) those of decomposed wood.

The animal most subjected to the invasion of "shedin" is the hog and certain kinds of fish.

Everyone is familiar with the fact that the laws of hygiene found in the five books of Moses[2] had a very favorable influence on the health of the nation. Reference was had here to the laws governing the use of various foods as well as the descriptions of various diseases, especially skin diseases. For example, leprosy is due to certain "shedin" nestling beneath the skin. This is caused by eating certain fish or of wearing hides of animals not transformed by the chemical process of tanning.

HYGIENIC LAWS OF THE TALMUD

There is no doubt that the wise lawmakers of the ancient Hebrews acquired their knowledge of social hygiene, as well as the knowledge of individual diseases, from the Egyptians. In the course of time, however, this knowledge has become more extensive and improved upon to such an extent that some of the hygienic principles in use at that time could be employed today. This may well be illustrated by the rules regulating disinfection and treatment of fecal material. It is conceivable that the priests, and the temple attendants, who came daily in contact with individuals suffering from various affections, eventually were in a position to recognize those diseases.

Other hygienic laws were enacted. No Jew was allowed to wear hide in its raw state as a garment. No tannery was allowed to be established, except two miles from the city and not on the east side. The east side was specified because the winds of the Orient were of an easterly nature. If an animal was killed the blood must be covered with dust or ashes, since "mother earth is the best destroyer of bacilli."

No spitting was allowed in the city of Jerusalem. If a patient died, his clothes were destroyed and the house where he resided fumigated.

One should be careful of the flies of lepers, as they transmit disease. This compares perfectly with our modern scientific views of transmission of disease by flies.

Every slaughtered animal was examined carefully for lung or liver trouble. This sanitary benefit is derived by everyone now, due to careful government inspection of food.

The drinking of water that has been standing uncovered is prohibited, unless it is first boiled. This bears out our theory of contamination. Also, there is a warning which forbids any man to eat "without first washing his hands." "Unwashed hands may cause blindness, deafness, or polypus." Long before Pasteur,[3] the rabbi knew about these germs or "shedin."

SURGERY

The high degree to which surgery had been developed may be seen both from operations and their *modus operandi*. Surgeons were known as "ummanim." The operating room is referred to as "the marble hall." A tunic was worn by the surgeon

over his clothing; various instruments were used. The borders of old wounds were freshened up to effect a union. In major operations an anesthetic was administered "same de shinta."

Among the operations, fractures, trephining, and amputations are frequently mentioned. Artificial teeth, made of hardwood, gold or silver, are also mentioned. The removal of the spleen, various forms of castration, intubation of the larynx, and an operation for an inperforate anus are described. Cranial plates, uterine speculum, and crutches were in use.

EMBRYOLOGY

Our embryologists might be especially interested to know that their specialty attained to a high degree of knowledge and familiarity on the part of the ancient rabbis. Aba Saul, with whom medicine was merely an avocation (his vocation being that of a grave digger), described minutely a fetus at the end of the sixth week. Rabbi Samuel,[1,9] on the other hand, says that it is impossible to determine the sex of an embryo before the end of the fourth month, a theory which is held by embryologists of our own time.

From the above we get just a few glimpses from the "laboratory of the Talmud." What is more surprising is that the Talmud formulates the principle that the symptom of any disease is merely the external manifestation of internal functional disturbances. This principle, which is today the prevailing teaching of pathology, is not even alluded to in the writings of Hippocrates[5] and is only hinted at vaguely by Galen[6] in his "De Locis Affectis."

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CLINICAL NOTES AND CASE REPORTS

ACUTE DIFFUSE HEPATITIS WITHOUT JAUNDICE*

By Edgar Wayburn, M.D.
San Francisco

THE most striking sign of acute diffuse hepatitis is jaundice. Often the presence of it establishes hepatitis as the diagnosis, while the final diagnosis of acute hepatitis is rarely made without it. A search through medical literature reveals very few published cases which demonstrate acute diffuse liver damage without the presence of a certain amount of icterus. As a rule, the degree of the liver damage is more or less paralleled by the degree of the jaundice.

Polack[1] reported the case of a 27-year-old woman with a two weeks' history of nausea, vomiting and fever, whose examination demonstrated some epigastric tenderness but no icterus. Ten days later the liver was 3 to 4 centimeters below the right costal margin, where it remained at the time of discharge twenty-three days after admission, although she was symptom-free. Unfortunately, no icterus index or serum bilirubin was done on admission. Eight and twenty-one days later the icterus index was four (on each of two occasions). There was slight transitory urobilinuria. The galactose test was strongly positive. The urine showed urobilinogen, but no bilirubin.

This case probably represents a mild subacute hepatitis, of which, doubtless, there are many, with little or no jaundice. An effort to find a case similar clinically or pathologically to the following one was unsuccessful.

REPORT OF CASE

H. E., a sixty-year old white male, a cook, was admitted to the Stanford Medical Service of the San Francisco Hospital on November 11, 1935. Four years before admission he developed a "cold," which consisted largely of a chronic cough with the expectoration of sputum. These symptoms remained without much change for almost four years. He had no chest pain, night sweats, or hemoptysis. His appetite failed gradually, resulting in progressive weight loss. A few months before admission he noted dyspnea on climbing stairs. This dyspnea progressed until it was present when at rest. Along with this there was marked and increasing weakness, advancing until his legs seemingly gave way when he walked.

Family History.—His father died at seventy-two, with "a blood-clot on the brain"; his mother died at sixty-one with a liver complaint.

Past History.—His past history included measles, scarlet fever, pneumonia, croup, and numerous colds. In his earlier years he drank a pint of liquor daily. He smoked cigarettes moderately.

Physical Examination.—Temperature was 98.6 degrees Fahrenheit. Pulse, 120. Respiration, 25. A fairly well-developed, poorly nourished, pale, elderly man, with dry, scaly skin. The eyes were red-rimmed and blood-shot. The sclerae were not jaundiced. The nose was clear, the throat was reddened. A few dirty carious teeth were present. There was generalized shotty lymphadenopathy. The heart was not enlarged. The sounds were poorly heard. There were no murmurs. The blood pressure was 118/90. The abdomen was flat, held tensely. The liver was palpable 10 centimeters below the right costal margin, nontender, smooth-surfaced. The edge seemed irregular. The spleen was not felt. There was a skin scar (supposedly from a burn). The testicles were large, the prepuce slightly ulcerated. The two terminal phalanges of the right index finger were surgically absent. Both deep and superficial reflexes were absent.

Laboratory.—The hemoglobin was 56 per cent (Sahli). Red blood cells, 3,230,000. White blood cells, 23,700. Smear: N, 73; L, 23; M, 2; E, 2. Urine: Clear, yellow, acid. Specific gravity, 1.025. Albumin, 0; sugar, 0. Sediment, negative. Blood Wassermann, negative; Kolmer, negative. Icterus index 2.9. Takata reaction was negative. X-ray: "The heart and aorta are not enlarged, but the aorta is somewhat increased in density. There is a slight amount of pulmonary congestion."

Course.—Ten days after admission the patient had an attack of acute respiratory distress. The lungs became filled with coarse moist râles and rhonchi. The sputum was profuse and frothy. Relief was obtained from morphin.

* From the Department of Medicine of Stanford University, and the Department of Public Health of the City and County of San Francisco.

1 Polack, Edmund: Hepatitis Acute Sine Icterus—Subchronisk Hepatitis, Ugeskrift for Laeger, 38:965, 1935.



Fig. 1

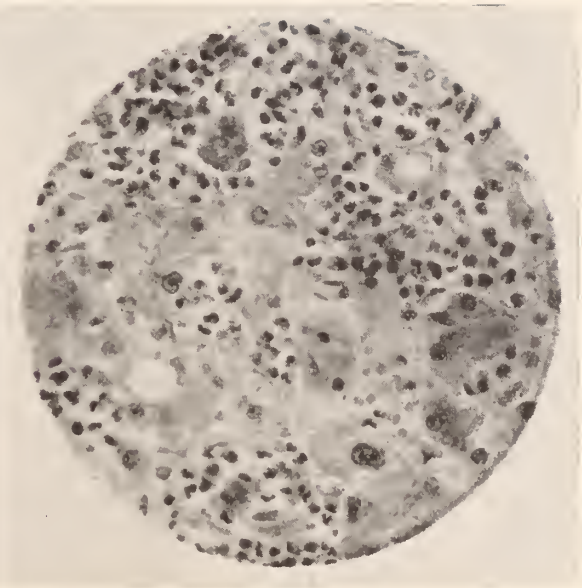


Fig. 2

Fig. 1.—Section of liver demonstrating irregular areas of marked polymorphonuclear leukocytic infiltration. H. and E. stain. X 100.

Fig. 2.—Section of liver demonstrating necrosis of liver cells, leukocytic infiltration, and hyalin, eosinophilic masses. H. and E. stain. X 500.

Ten days later his temperature rose suddenly to 102.5 degrees Fahrenheit; his chest filled with râles. He died within a few hours.

Autopsy.—(39—152). Autopsy was performed forty-four hours after death by Dr. M. Miller of the Stanford University department of pathology:

The body was poorly nourished. The mucous membranes were pale. No jaundice was noted. There were dense fibrous adhesions in the pleural cavity at both lung apices and at the left base. Throughout both lungs there was much hyperemia and many small, grayish, patchy areas of consolidation. The bronchi contained thick mucopurulent material. The peribronchial lymph nodes were large, firm, and anthracotic. The heart and vascular system were normal, except for moderate arteriosclerosis.

The liver margin extended five centimeters below the xiphoid process. The omentum was adherent to the surface of the liver. There were dense fibrous adhesions between the diaphragm and liver, and others binding together the omentum, gall-bladder, duodenum, and hepatic flexure of the colon. The liver measured 27 by 19 by 8 centimeters. The capsule was thickened, pale, fibrous, being two millimeters thick in some areas. The liver was cut with very little increase in resistance. The tissue was pale, mottled yellowish-brown.

The bile ducts were patent. The gall-bladder was displaced to the right, contained 20 cubic centimeters of thin greenish-brown bile. There was a slight deposit of cholesterol on the mucosa.

The spleen measured 12 by 8 by 4 centimeters, had a thin, opaque, fibrous capsule, which was firmly adherent to the diaphragm. The pulp was purplish-red, soft, and mushy.

The remaining organs demonstrated no important lesions.

Histological Examination.—(Dr. A. J. Cox.)

The liver showed very irregular, fairly well-localized areas of marked polymorphonuclear leukocytic infiltration throughout the section. There were in these regions a few large mononuclears, but practically no other inflammatory cells. These zones had no constant relationship to the liver lobules. In the affected areas some liver cells were absent; others were shrunken and contained poorly stained or unstained nuclei. Some showed irregular confluent eosinophilic hyaline masses in the cytoplasm. In these areas there were also cells resembling fibroblasts in more than usual numbers, but there was no significant deposit of collagen. The intervening areas of liver tissue were composed of normal-appearing cell cords, separated by slightly widened sinusoids. A few of the cells, particularly at the periphery of the lobules, contained large vacuoles.

The spleen showed moderate hyperemia of the pulp, which contained numerous polymorphonuclear leukocytes. Many large mononuclear cells contained clumps of yellow-brown pigment granules. No evidence of reticulum hyperplasia was seen.

A section of the lung showed many alveoli filled with an exudate in which were polymorphonuclear, leukocytes, and hemosiderin-laden phagocytes.

Sections of heart, aorta, kidney, adrenal, and pancreas showed only changes associated with arteriosclerosis.

The anatomical diagnoses were:

1. Hepatitis, acute.
2. Bronchopneumonia.
3. Arteriosclerosis, generalized.
4. Perihepatitis, chronic.
5. Perisplenitis, chronic.
6. Hypertrophy of prostate, mild.

COMMENT

There is a great deal known about the clinical and anatomical pictures of advanced cirrhosis and a considerable amount about milder grades. With regard to the origin of this fairly common disease, however, there is still an unpenetrated fog of ignorance. According to Bloomfield,[2] there is a successive chain of events, leading from the mildest catarrhal jaundice (or toxic hepatitis) to the most advanced cirrhosis in the same way that acute and chronic glomerular nephritis are related. Acute yellow atrophy falls into this general classification of liver inflammation as the acute fulminating process which corresponds to "malignant hypertension." Toxic hepatitis when present may clear entirely or pass into a latent stage; but, if it is later to become cirrhosis, becomes periodically lighted up enough to cause further liver damage. It is, however, true that the rare cases of toxic hepatitis which come to autopsy show a cloudy swelling of the parenchyma as a whole, and no evidence of cellular reaction of the type and distribution of cirrhosis.

2 Bloomfield, Arthur L.: In Musser, Internal Medicine, second edition, 1934.

The case which has just been presented demonstrates little to mark it off clinically. In the history, weakness of five weeks' duration without adequate explanation was the outstanding symptom. With this were loss of weight and dyspnea. There was a daily intake of one pint of liquor over an extended period. The physical examination showed weakness, dental caries, a smooth large liver, but no jaundice. There was an anemia with a high color index.

Pathologically, there is an acute inflammatory reaction located in irregular zones which have no constant relationship to the liver lobules. Such an arrangement is found in the chronic inflammatory reaction and fibrosis of hepatic cirrhosis. The necrobiosis found is similar to that of cirrhosis. The irregular coarse hyaline meshwork, staining deeply with eosin and representing a degenerative change in the cytoplasm of the liver cells (see Fig. 2), was described by F. B. Mallory[3] as characteristic of alcoholic cirrhosis.

This case is, therefore, proposed as an example of acute hepatitis without jaundice, and as representative of the initial stage of Laennec's cirrhosis of the liver before any fibrosis has developed. If one or more attacks of nonicteric hepatitis may precede cirrhosis, it is understandable that many patients may reach the stage of a hard liver with hematemesis or ascites without having been previously recognized. It is suggested that hepatomegaly, particularly when accompanied by marked weakness and a macrocytic type of anemia, be given consideration even in the absence of jaundice.

SUMMARY AND CONCLUSIONS

A case of acute diffuse hepatitis with no jaundice is described. The patient died without other factors adequate to consider as responsible for the death excepting a terminally appearing bronchopneumonia. Histologically, in addition to the acute inflammatory reaction, there were present in large numbers the cells described by Mallory as characteristic of Laennec's cirrhosis. This case is regarded as the initial stage of cirrhosis of the liver.[4]

490 Post Street.

FOOD HANDLER EXAMINATIONS*

FINDINGS IN 4,386 PERSONS, YEARS 1931-1936 INCLUSIVE

By J. C. Geiger, M.D.
San Francisco

SINCE the rôle of the human carrier has been clearly shown in infections such as typhoid fever, and in intoxications such as food poisoning, it would appear that there was ample justification for the search for the carrier state among food handlers as a preventive or control measure. On careful consideration of the problem, however, it is seen that the routine examination of all food handlers presents certain definite difficulties.

HUMAN CARRIERS

The carrier state is frequently one of intermittency rather than constancy. Unless the specimens are obtained under well-regulated circumstances, the possibilities of falsification of source are manifestly a possible and, indeed, a probable source of error. The cost of the medical and laboratory examination, if properly carried out to include all possibilities and follow-up, is probably greater than the results of such a search warrant. The expense of setting up a departmental organization so that the examination may be more nearly uniform and standardized, is considerable, and official agencies cannot easily demand a fee for such a service unless the scope of the examination is extended to include the desirable points of the periodic health examination. In the population centers, particularly, such a practice would assume proportions approaching certain types of state or social medicine, and such a program should be avoided. On the other hand, the individualism of medical practice could not supply the public health official with uniform interpretation of findings, and the practice of accepting privately practicing physicians' certificates would not afford the desirable uniformity of standards. The inclusion of privately operated laboratories, with a certain amount of individualism in technique, also complicates the reliability of the data furnished from nonofficial sources and increases the complexity of the entire program.

EXAMINATION PROCEDURES

The examination of food handlers is usually conducted as of two phases: the medical or physical, carried out by a physician; and the laboratory, carried out on appropriate specimens, presumably from the subject examined by the physician. It is unnecessary to point out the importance of a history, not only of the recent past, but of the life period; but it should be mentioned that the historical data usually ascertained are probably of little value, due to hurried, semipublic inquiry.

MEDICAL EXAMINATION

The medical examination alone, no matter how carefully it is made, reveals little evidence of the most important carrier state to be found or eliminated, that of the enteric fevers. It is essential, therefore, that the medical examination be augmented by appropriate laboratory examination of suitable specimens. As a guide to special investigations, as roentgenologic studies in the diagnosis of pulmonary tuberculosis in selected instances, the physical examination is of importance; as a means of detecting the carrier of food-poisoning organisms, however, its value is almost negligible.

LABORATORY EXAMINATIONS

The laboratory examination, of itself, offers a greater field of usefulness than the medical examination alone. To be of value, however, the speci-

3 Mallory, Frank B.: Cirrhosis of the Liver—Five Different Types of Lesions from Which It may Arise, Bull. of Johns Hopkins Hospital, 22:69-75, 1911.

4 I desire to express my appreciation of the aid by Dr. Alvin J. Cox of the Stanford University Department of Pathology.

* From the Department of Public Health, City and County of San Francisco.

mens to be examined by bacteriologic or other methods should be from bona fide sources, should have been obtained under controlled conditions, and should be delivered at the laboratory as soon as possible, in good condition, properly labeled. If these circumstances obtain, the results of the laboratory work have definite and important significance; if they do not obtain, the results of the most careful work of the laboratory are subject to criticism and question. The methods used in the laboratory should be standardized to assure uniform technique, but it is to be remembered that the procedures of a decade ago are not suited to present-day requirements.

The number of specimens submitted for examination should be minimized, yet it is desirable to obtain the maximum amount of information from the study of the specimens furnished. If the routine specimens are few in number, it is obviously more nearly possible to obtain them from bona fide sources. While food may serve as a means of transmission in diphtheria, septic sore throat, pulmonary and gastro-intestinal tuberculosis, and possibly other diseases involving the secretions of the respiratory and upper respiratory tracts, the most important sources of infection in typhoid fever involve the feces and urine.

EXCRETA EXAMINATIONS: SAN FRANCISCO FINDINGS

Since 1931 the San Francisco Department of Public Health has examined bacteriologically the excreta of certain types of food handlers, especially the employees of dairies. In addition, the Department of Public Health initiated and partly financed, in coöperation with the George Williams Hooper Foundation of the University of California, an investigation of employees of hotels, clubs, and restaurants for the detection of the carrier state of amebic dysentery. These do not, however, include such individuals about whom the Division of Epidemiology has elicited information that placed them under suspicion as carriers. The number of persons of the first group, which consisted mainly of the employees of dairies, was 3,314. The excreta of these were examined over a period of six years from 1931-1936, inclusive. It may be of interest to note that the examinations were performed by the same laboratory staff and under a standardized technique. Of the persons so examined, 3,314, none were found to be carriers of the typhoid-paratyphoid-enteritidis group of organisms. This uniformity of negative results has focused attention to this not inconsiderable item of expense, and by administrative executive order such examinations, as a routine procedure, have been discontinued. The results obtained in the second group, namely, the examination of the excreta of employees of hotels, clubs, and restaurants for carriers of amebic dysentery have been published by Iverson and Johnstone.[1] The number of carriers found was 2.04 per cent of the persons examined, 1,072. The percentage of positive carriers found (2.04) did not justify, in the opinion of the Department of Public Health, the continuance of the investigation, particularly since a complete cross section of the food-purveying establishments in San Francisco was represented, and especially when the incidence of the reported cases of amebic dysentery showed no elevation over the normal expectancy nor any appreciable diminution. Whether food handlers on ships, in hotels, clubs, and restaurants should be examined as a prerequisite to employment, is open to argument. It would seem more rational that physicians report their cases of amebiasis more promptly, and that the Department of Public Health, as the official agency, investigate the probable source of infection with diligence and intelligence, and arrange for the immediate removal of the carrier from food-handling, with surveillance over his or her future activities.

COMMENT

Modern public-health practice probably includes a number of activities, the continuation of which, if based on close scrutiny of actual results and their bearing on the preservation of the public health, could not be justified. It is admitted that, ideally and theoretically, there is justification for the routine medical and laboratory examination of food handlers, but it is believed that the effectiveness of the measure, at least as it is carried out in present-day practice, is questionable. If the medical and laboratory examinations are conducted in a manner that will offer reliable information concerning the food handler, the true cost, even though the principles of mass production may be in operation, will be more or less prohibitive.

It is quite possible that the amount of money spent on the routine medical and laboratory examination of food handlers, were it spent judiciously in educational activities, augmenting the active and well-developed regulatory and supervisorial food inspection service, would be more prolific of actual prevention of disease. It should be emphasized, also, that the food inspection service should include not only the careful and detailed inspection of the physical environment and inspection of the food and food products, but, of equal importance, the technique followed in the preparing, holding, and serving of food.

IN CONCLUSION

1. The physical and laboratory examination of food handlers, to be effective, should be complete and frequent, with emphasis on the carrier state as related to the enteric fevers particularly.

2. The routine physical and laboratory examinations by the official public health agency of all food handlers, since the study must be complete and frequent to be of appreciable value, is not justified by the results obtained, at least in San Francisco. The same money spent in rational educational activities would probably produce more tangible results.

101 Grove Street.

[1] J. A. M. A., Vol. 108, No. 11 (March 13), 1937.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

ACUTE NONINFECTIOUS BURSITIS

I. SYMPTOMS

Le Roy C. Abbott, M.D. (384 Post Street, San Francisco).—The bursae are synovial sacs lined with a delicate layer of endothelium. As a rule, they are situated near the joints and at the intersection of muscles or tendons, also at points where muscles or tendons move over a projecting portion of bone. The endothelium-lining cells secrete synovial fluid, which acts as a lubricant and reduces friction during motion. Some of the bursae, such as the subacromial and the prepatellar, are constantly present, while others, such as the bursae lying over a bunion or over a kyphos in a tuberculous spine, are adventitious and develop as a result of continued irritation.

The bursae are similar in structure to the synovial membrane of joints and are subject to corresponding types of disease. In this discussion we shall include only the symptoms which occur in the acute noninfectious type of bursitis. It should be borne in mind that chronic or subacute bursitis is more common than the acute form. For example, chronic inflammation of the olecranon and prepatellar bursae occurs much more often than the acute involvement of these bursae.

Acute noninfectious bursitis may be the result of direct injury. The injury is followed by swelling, increased heat and tenderness localized to the area of the bursa. There is additional secretion of fluid within the bursa, at times producing fluctuation. Generally, the process subsides rapidly with rest. Repeated injuries of a minor nature, often incident to occupation, may cause acute bursitis. This type of traumatic or occupational bursitis is the most frequent noninfectious lesion of the bursa.

While there are numerous bursae around such joints as the shoulder, elbow, hip and knee, ordinarily there are only certain ones which frequently become the seat of inflammation. These are the subacromial, the radiohumeral, the olecranon, the iliopectineal, the trochanteric, the ischiogluteal, the prepatellar, pretibial, and the retrocalcaneal bursae. The symptoms which are common to all of them, as a result of inflammation, are pain, localized tenderness, swelling and occasionally fluctuation. Any movement which increases friction of the bursal walls becomes limited and painful; other motion is comparatively free. This condition is always characteristic of an extra-articular lesion.

In some of the more deeply situated bursae, these symptoms may be difficult to elicit. The diagnosis is influenced by the supposition that a bursitis exists because of the location of tenderness and pain. At times a positive diagnosis can be made only by aspiration or operation.

In all questionable cases the physician must have in mind the possibility of a localized periostitis, or an injury to ligaments or tendons. For example, though some cases of so-called "tennis elbow" may be due to inflammation of the radiohumeral bursa, others may be traced to localized inflammation of the periosteum, a condition known as epicondylitis. Also, symptoms not infrequently arise in "tennis elbow" from a tear of the common tendon of the origin of the extensors of the wrist and fingers.

Of all forms of acute bursitis, that which affects the subacromial bursa is the most common and the most distressing. It may be caused by a direct blow on the shoulder or it may be due to occupational trauma, and is seen most frequently in people whose employment necessitates working with the arm in abduction. In this group, the bursitis is secondary to the injury of the underlying tendons. As Codman has pointed out, there may be minute ruptures of the supraspinatus which produce a tendonitis and a resultant inflammation of the bursa. In other instances the acute inflammation may be due to repeated irritation over a calcified deposit in any of the tendons comprising the musculotendonous cuff, particularly the tendon of the supraspinatus.

While the occurrence of such deposits in the shoulder has become familiar, it is not sufficiently recognized that similar deposits of calcium may occur around other joints and give rise to inflammation, as indicated by Dr. Harold Hitchcock in his paper on "Celcium Deposits About Joint."

In cases of acute subacromial bursitis, the patient generally recounts a history of discomfort before the onset of the acute attack. Men frequently complain of pain when putting on their coats, women have trouble in doing their hair. There is a painful catch on abduction and rotation of the shoulder joint. This symptom is often the first indication of a calcified deposit in the tendon of the supraspinatus muscle.

If the patient is observed during this stage, the examiner will find a disturbance in the scapulohumeral rhythm. Normally, in abduction of the arm the movement of the scapula on the thorax and the motion at the scapulohumeral joint are carried out simultaneously in perfect rhythm. In affections of the subacromial bursa there is gross disturbance of this rhythm. The patient attempts to avoid motion at the scapulohumeral joint and, as a consequence, elevation of the arm is almost entirely carried out by rotation of the scapula on the chest wall. When the arm has reached a position of right-angle abduction there is usually a painful hitch, and complete elevation is then obtained only by abduction and external rotation at the scapulohumeral joint. This disturbance of rhythm is immediately apparent when both arms are elevated and the patient is observed from behind.

As the inflammation progresses, with more diffuse involvement of the bursa, the patient complains of extreme pain over the summit of the shoulder. The arm is fixed at the side by intense muscular spasm, and swelling occurs in the region of the bursa, the tenderness is excessive and includes the entire bursal area. The movements of rotation and abduction are completely restricted, though flexion and extension are relatively free. In cases of some duration there is atrophy of the muscles of the shoulder girdle, especially the supraspinatus, infraspinatus and the deltoid.

In many instances this condition is accompanied by pain in the neck, arm, forearm and hand along the distribution of the median and ulnar nerves. Almost invariably pain is referred to the insertion of the deltoid. Frequently there is a thickening of the deltoid fibers in this region, a finding which may be due to intense muscular spasm. With these neuritic symptoms one frequently observes swelling of the back of the hand and forearm, inability to extend the elbow and carry out complete range of motion of the fingers.

Roentgenograms should be taken to ascertain the presence of calcified deposits if they exist. The best of technique must be employed and the exposures taken from various angles; otherwise, these deposits may escape observation.

As Codman points out, the cardinal symptoms of subacromial bursitis are pain, limitation of motion, muscular spasm and atrophy, any one of which may predominate.

In conclusion, I know of no better way of emphasizing the fact that this lesion is of frequent occurrence, and is often confused with other conditions, than to quote the following paragraph from Codman's valuable book, "The Shoulder":

"The cases which are to be discussed in this paper are by far the most common lesions of the shoulder joint. It is the writer's experience that more patients seek hospital treatment for lesions involving the subacromial bursa than for all other lesions of the shoulder joint, including tuberculosis and fractures, added together." "Not only is this true, but it is also true that more cases of subacromial bursitis seek hospital treatment than all the cases of the supposedly more common forms of bursitis, such as 'miner's elbow,' 'housemaid's knee,' and 'weaver's bottom.' In those clinics in which these statements are apparently not true it will be found that these cases are passing unrecognized under the diagnoses of brachial neuritis, periarthritis, muscular rheumatism circumflex paralysis, contusion of the shoulder, fibrous ankylosis, gout, rheumatism and other vague terms."

* * *

II. DIAGNOSIS AND PROGNOSIS

T. E. P. Gocher, M.D. (220 Montgomery Street, San Francisco).—A noninfectious bursitis is an inflammation of the sac of a bursa from other causes than infection, such as from trauma, systemic conditions or irritation of the area of the bursa. This inflammation may be limited to the sac itself or, later, may spread involving the surrounding tissues.

Diagnosis.—The symptoms of a bursitis are usually localized pain over a bursal area; tenderness to pressure or motion; swelling to varying degrees; limitation of function of the part and at times fluctuation. If the correct diagnosis is not made at first, the inflammation may spread and involve nerves, muscle tissue or the tissues of a joint. This spreading is usually in the form of a fibrosis. The tenderness is localized at first over the area of the bursa and later, depending upon the degree of inflammation, may spread and become generalized over the area. When this occurs the difficulty in diagnosis is greater.

In studying fifty cases of noninfectious bursitis in workers, and taking special care to study out the areas involved in the spreading of the inflammation, it was found that:

(*a*) There was no spreading in 30 per cent of the cases.

(*b*) The inflammation spread in 70 per cent and involved:

1. The joint capsule in 20 per cent.
2. Soft tissues in 46 per cent.
3. Muscle tissues in 20 per cent.
4. Nerve tissues in 14 per cent.
5. Neighboring bursae in 6 per cent, especially in the shoulder area.

This made diagnosis more difficult, requiring careful study in order to obtain the best results with treatment.

In studying twenty-four cases of prolonged disability, and treating each for a "bursitis" with excellent results, the following diagnoses were found:

(*a*) "Arthritis" in 8.3 per cent of these cases.
(*b*) "Neuritis" in 25 per cent.
(*c*) "Myositis" in 54.7 per cent.
(*d*) "Sprained joint" in 12 per cent.

X-rays will rule out any bone disease or fracture or dislocation. At times, there may be found calcareous deposits, or melon-seed bodies in the area of the bursa. These are usually in the floor of the bursa or beneath it in the soft tissues. They may or may not cause symptoms such as tenderness.

A noninfectious bursitis may be painful, but have no marked redness or "heat" in the area. Fluid may develop, and in some cases quite suddenly, and tenderness may also appear. This tenderness may be the chief or only symptom outside of the discomfort of swelling.

The following conditions should be considered when making a differential diagnosis:

(*a*) Periarthritis or an arthritis, especially at the shoulder.
(*b*) Neuritis, especially in the hip area.
(*c*) Myofascitis or a myositis, especially in the hip area.
(*d*) Phlebitis, especially at the knee area.
(*e*) Periostitis.
(*f*) Fracture.
(*g*) Sprained joint.
(*h*) Osteochondritis deformans.
(*i*) Osgood-Schlatter's disease.

One or more of these conditions may be present, but if a "bursitis" is the primary cause, then this condition should be recognized. It should also be remembered there is always danger of infection

occurring in this type of bursitis. Luckily, the percentage is not high.

A bursitis of this type may become chronic before recognized or the patient reports to the doctor. Then, frequently, the walls of the sac have become thickened and the fluid contents of the sac also thickened. In these cases there is often a "clicking" on motion of the area. Many of these bursae cause no symptoms outside of the "clicking," and may be present months or years before some condition draws attention to this "clicking." This type is frequently found in the shoulder area.

Prognosis.—The prognosis of a bursitis depends on the age of the patient. The younger patient usually gets well faster. The exact "cause" of the bursitis is another important factor. For instance, if due to irritation, and diagnosed early, then when the irritation is removed the symptoms of the bursitis will often readily disappear. A "first attack" usually reacts to appropriate treatment very well, while an aggravation of a chronic condition may have treatment greatly prolonged, especially if the cause of the bursitis is from the general systemic condition.

When the bursitis is not recognized at first and spreading of the inflammation ensues, then the disability is in the most instances prolonged.

Prognosis is always best if the patient reports early and the condition recognized from the first. The shoulder and hip bursae, and at times the bursae of the heel, are usually the worst offenders in prolonged treatment, while the elbow and knee areas readily react to treatment unless complicated.

It should also be remembered that a chronic bursitis with "clicking" may cause no disability whatsoever outside of the mental effect of the "click." This type is usually difficult to treat; but unless active symptoms such as pain or tenderness are present, it often requires no treatment. Many people have "clicking" in their joints and especially the shoulder, and live most of their lives with this condition and yet have no symptoms.

The prognosis of a bursitis, on the average, is good. The patients practically all will react to appropriate treatment, and only when complications are present should the treatment be prolonged.

* * *

III. TREATMENT

Charles S. Roller, M.D. (Woodland Clinic, Woodland).—The most frequently troublesome bursae, in our experience, are the prepatellar, the subdeltoid, the olecranon, the radiohumeral, and some of the bursae situated posterior and lateral to the upper tibia, and fibula and lower femur. Other bursa that I mention, only that they may be kept in mind, are these: The iliopectineal, trochanteric, numerous gluteal bursae, and bursae near the shoulder joint and scapular region other than subdeltoid bursae. As is well known, some of these bursae may be present in one individual and absent in another, and they vary considerably as to size.

Bursae are situated anatomically between moving tissue planes so that these tissues may more easily move or glide over each other. They also act very materially as protective cushions to the underlying and overlying parts.

Assuming the diagnosis to be properly made, which is usually not difficult, and granting that we are not dealing with purulent or infected bursae, I believe that the following points in the management of these cases are worthy of note.

Treatment.—Credit for this method of treatment should be given entirely to Weeks and Delprat,[1] as outlined in their article of several years ago.

In this brief discussion, emphasis will be laid upon novocain infiltration, aspiration, and multiple puncture of acute noninfectious bursa. For the past few years this type of diseased bursa has been treated by us as follows: The skin is surgically prepared and draped, a little 2 per cent novocain injected into the skin immediately over the bursa and, with a longer needle, the bursa is thoroughly anesthetized and infiltrated with 2 per cent novocain. Then, with a rather large caliber needle, 16 gauge, and through the same skin puncture, the bursa is entered and all exudate possible aspirated. With the same needle twenty to thirty punctures are made into the bursal sac, without withdrawing the needle from the skin, and with the puncture holes extending over the entire bursa. The needle is then withdrawn and a small square of sterile gauze secured with adhesive over the puncture hole in the skin, and left in place forty-eight hours. This procedure usually gives almost immediate relief from pain, and motion of the parts that was extremely painful before injection and multiple puncture is now relatively painless. The most probable explanation of the pain relief by this treatment is release of intrabursal tension, which is of more or less lasting degree because the many puncture holes allow drainage into the surrounding tissue, and absorption for a considerable time. Also, undoubtedly vascularization is increased in the bursa and adjacent tissues by the multiple punctures and the process of healing.

The most spectacular relief of pain probably occurs in the subacromial cases. These patients are radiographed with the humerus in internal and external rotation. If the bursa can be visualized, as is often the case because of calcareous content, the entire procedure is carried out with strict surgical asepsis under fluoroscopic control. By this means the large needle can be accurately guided into the bursal sac, novocain anesthesia accurately placed, and multiple punctures carried out under direct fluoroscopic vision. In three cases we have been able to break up the calcareous deposit with the large needle and, by using a little sterile saline, have also been able to aspirate the greater part of it. Material of this type that we have been able to withdraw is whitish in color, rather soft, and of putty-like consistency. This procedure is well worthy of trial in any bursa with a calcareous deposit. However, whether or not the deposit can be broken up and aspirated seems to have little effect upon the cure of the patient, as far as the immediate acute attack is concerned. Deposits do sometimes disappear spontaneously, or after multiple puncture,

1 Weeks, Alanson, and Delprat, G. D.: Subdeltoid Bursitis (Acute), Internat. Clinics, 3:40-48, (Sept.) 1936.

as shown by subsequent radiographs of the region. After this is done the parts are placed at rest. This is accomplished by various means, depending upon the location of the bursa. A sling is usually sufficient in the subdeltoid cases. Adhesive strapping, elastic bandages, and splints are used as warranted. In only very severe cases is hospitalization necessary. Sedation may be required, depending upon the degree of pain, from mild analgesics up to morphin if necessary. General systemic measures, plenty of fluids, and elimination are important. Usually patients are able to return to work in from three to seven days after treatment, but occasionally it may take a little longer. We have completely disregarded traction and absolute immobilization as methods of treating acute noninfectious bursae.

During convalescence hot applications, dry heat, or diathermy to the parts are aids to recovery, and are used daily in severe cases. This treatment many times increases pain if carried out before injection and multiple puncture. Active motion of the part is encouraged by degrees as soon as the pain has disappeared and only soreness, stiffness, or mild pain on motion remain. Very light massage is sometimes helpful.

If the above measures fail after a reasonable trial, which in our experience certainly is very infrequent, or if recurrence of the bursitis is troublesome, excision of the bursa is done. In the olecranon and prepatellar cases this is possibly carried out earlier than the others, because of the accessibility of the bursa and the simplicity of the operation necessary to effect a permanent cure. Considerable care must be exercised in the excision in order to be certain that the bursal sac is entirely removed. After exposure of the sac a small needle is inserted into the bursa and the entire interior stained by injection with methylene blue. This greatly minimizes the danger of leaving part of the bursal sac. Bursae may have multiple compartments, and it is easy at times to do an incomplete operation if care is not exercised. At times, too, even methylene blue staining may not penetrate to all of the compartments, so that thorough exploration of the region of the bursa is done before closure, even though we feel that all of the sac has been removed. Recurrence of the trouble after excision of a bursa, or a wound which does not heal per primam are almost certainly due to incomplete excision. Excision of subdeltoid or radiohumeral bursae is more technical, but likewise gives a permanent cure if properly carried out. As is well known, calcareous deposits in subacromial bursitis may be found mainly in the tendon of the supraspinatus muscle, and the consensus of opinion seems to be that they may originate there, and later penetrate into the bursa.

Occasionally a change in occupation is necessary in chronic irritation and recurrent occupational bursitis, unless total excision of the bursa is done.

In conclusion, we wish to emphasize the following points:

First, that by this method of treatment in cases of noninfectious bursitis, our patients are disabled for a much less length of time than formerly, they suffer a great deal less pain, and cure seems fairly permanent. We have done very few excisions in the last few years.

Second, we wish to emphasize the importance of accuracy in placing the novocain infiltration to insure a painless operation, and in covering as much of the bursal sac as possible with puncture holes, made with a large caliber needle.

Third, if excision of the bursa is ultimately necessary, care must be exercised that complete removal is done.

Fourth, in the deep-seated bursa it is always advisable to fluoroscope the patient and have a film made of the part because, if calcareous deposits are present in the bursa, localization can be done exactly, and the procedure can be accomplished under fluoroscopic vision and control.

Fifth, in some of the bursae uncommonly affected by this disease we have found it well worth while to refresh our memories as to their location, by study of the anatomy of the region before attempting novocain infiltration, aspiration, and multiple puncture.

The Undergraduate Teaching of Obstetrics: Chairman's Address.—E. D. Plass, Iowa City (*Journal of the American Medical Association,* August 27, 1938), points out that, generally speaking, it may be said that the didactic teaching of obstetrics in the medical schools of the country is as adequate as that of any other major clinical subject. Textbooks are well written and authoritative, and the instructional staffs are progressive, interested and alert. The problem of practical training is more difficult to evaluate and from the statistical approach it seems almost insoluble. Pregnancy and parturition are essentially physiologic in character, with the major life-threatening complications of such infrequent occurrence that only the larger hospital centers can have anything approaching an adequate experience. The teachers of obstetrics realize the futility of attempting to make obstetric specialists out of undergraduates, and yet their critics are, at least by implication, insisting that this should be an objective of the instructional staffs. No other medical subject is taught with so much attention to preparing the student for actual practice as is obstetrics, and yet the others are not subjected to so much adverse criticism.

Health of the Migrant.—Walter M. Dickie, Sacramento, California (*Journal of the American Medical Association,* August 27, 1938), states that in 1936 and 1937, approximately 100,000 individuals seeking manual labor entered California by automobile each year, nearly 260,000 having arrived in two and one-half years. More than 57 per cent of these migratory laborers came from the Southern Middle Western states of Oklahoma, Texas, Arkansas, Missouri, Kansas, and Arizona. California, in coöperation with federal agencies, has controlled communicable diseases among these groups, no major epidemics having occurred. Services included child and maternal hygiene, diagnosis of tuberculosis, public health nursing, education in nutrition, including selection and preparation of proper foods, provision of housing facilities and general public health services. Study of conditions among these laborers revealed their greatest need—that of education in the hygiene of proper living. The amalgamation of this army of underprivileged people into the social life of California requires the coördinated efforts of social welfare, relief, medical, nursing, public health and administrative workers among local, state, and federal agencies. In public health administration there are no state border lines so far as migration is concerned and no direct effort can be made forcibly to bar entrance of migrants into California. In administering public activities to control these migrant groups, full recognition, first of all, was given to their status as human beings and, with public health as a driving force, provision was made not for prevention of disease alone but for medical and nursing care, relief, and housing facilities.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

WILLIAM W. ROBLEE.....President
CHARLES A. DUKES.....President-Elect
LOWELL S. GOIN.....Speaker
KARL L. SCHAUPP.....Council Chairman
GEORGE H. KRESS.....Secretary-Treasurer

THIS MONTH'S TOPICS

ASSOCIATION ACTIVITIES

1. *Special Session, House of Delegates, American Medical Association.*
Statement of Board of Trustees.
Report of W. W. Roblee, President of the California Medical Association.
Resolution introduced by President-Elect Charles A. Dukes.
Press Comments.
Report of Reference Committee of the American Medical Association House of Delegates.

DEPARTMENT OF PUBLIC RELATIONS

1. *"State Humane Pound Act."*
2. *Proposed Institutions Commission for the County of Los Angeles.*

SPECIAL SESSION, HOUSE OF DELEGATES, AMERICAN MEDICAL ASSOCIATION*

The calls for the special session of the House of Delegates of the American Medical Association and of State Medical Association secretaries and editors appeared in CALIFORNIA AND WESTERN MEDICINE, September issue, on pages 180 and 221.

The meetings were held Friday and Saturday, September 16 and 17, in the Red Lacquer Room of the Palmer House.

The following items: I. Statement of the American Medical Association Board of Trustees Chairman Booth; II. Resolution introduced by Dr. Charles A. Dukes of Oakland; III. Newspaper Excerpts, (a) (b) (c) and (d); and IV. Official Report of the Reference Committee on Consideration of the National Health Program, give a survey picture of the two-day session of the House of Delegates.

* * *

I

(COPY)

Statement of the Board of Trustees, Arthur H. Booth, Chairman, to the Special Session of the House of Delegates, Chicago, September 16, 1938

For the third time in the history of the American Medical Association your Board of Trustees, in accordance with the power conferred on it by the by-laws of the Association, has called you into a special session. On two previous occasions, once when our country was at war and the services of the American Medical Association were required to provide medical officers for our troops and physicians to aid in the work of the selective service boards, and on another occasion when the Social Security Act was first proposed to the Congress, you were called into special session. The specific purposes for which you have been called on this occasion have been announced to you by the Speaker of the House of Delegates and by the Secretary of the Association.

Following the presentation of the statement of Miss Josephine Roche to the House of Delegates at the San Francisco session, the National Health Conference met in Washington, July 18, 19, and 20. From that conference there emanated, as you already know, a National Health Program, developed by a technical committee, which, in turn, had been appointed by the Interdepartmental Committee on Health and Welfare appointed by the President of the United States. The National Health Conference was a meeting attended by representatives of labor and welfare agencies, medical organizations, social workers, and other groups. The program which is now presented to you was presented to the National Health Conference by representatives of various governmental agencies responsible for the conference and by the Technical Committee that has been mentioned. Little opportunity was given for discussion by those in attendance on the Conference of the specific proposals that were made. The president of the Association, your secretary, the chairman of the Board of Trustees, the editor of THE JOURNAL, the chairman of your Committee on Medical Service, and the chairmen of your Councils on Scientific Assembly and on Industrial Health who were invited individually to participate in the conference, all made clear to the Conference the fact that only the House of Delegates of the American Medical Association is empowered to establish policies and that only the House of Delegates may establish for the American Medical Association a policy relative to the various proposals that were made. In submitting these proposals to you the Board would point out that at the calling of the National Health Conference it was stipulated that no formal action would be taken by that conference. Nevertheless, responsible representatives of the Government have indicated that the proposals made would be embodied in legislation to be submitted to the Congress of the United States when next it meets.

For these reasons, and particularly because the Congress of the United States will be convened before the House of Delegates will again meet in regular session, the Board of Trustees considered it advisable to call this special session of the House of Delegates in order that your representatives may be able to present your point of view as representative of the American medical profession, to the people and to the Congress of the United States and to take such other action as may be deemed necessary to make your views effective.

The Board of Trustees will not at this time read to the House of Delegates in detail the complete text of the proposals or even the abstract of the five chief proposals that have been made. These proposals concern briefly (1) expansion of public health service, (2) increase of hospital facilities, (3) medical care for the medically indigent, (4) a general program for medical care, and (5) a program for compulsory sickness insurance covering the entire population of the United States.

These five proposals, it has been suggested, may well be submitted to five special reference committees of this House of Delegates, each of which will concern itself with the details of one of these five proposals and at the same time give consideration to such alternative proposals for meeting the same needs as may arise from the medical profession itself.

The complete text of the proposed National Health Program was published in THE JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION immediately after the conclusions of the National Health Conference and has thus been made available to the entire medical profession of the country. In order, however, that you may have this material immediately before you, there is now being given to each of

* See also, page 249 for editorial comments.

you a copy of the complete text of the National Health Program to be used in your consideration of this subject.

In submitting these proposals to the National Health Conference the statement was made by various representatives of our Government that it was not contemplated that this entire program would be made immediately effective but rather that there might, over a term of approximately ten years, be developed such a program, according to the "blueprints" offered, so that expansion of medical and public health activities in the United States during the next ten years might follow the definite procedure here outlined. On you, therefore, rests a serious burden—the burden not only of planning for the immediate needs in the field of medical care in the United States, but also for setting forth the policies and views of the medical profession in relationship to medical care and in relationship to this "blueprint."

Your responsibility is great. The medical profession of the entire country awaits anxiously the answer that you will make. Recognizing the manner in which the House of Delegates has in the past accepted the obligation placed on it to represent the point of view of 110,000 American physicians, of whom you are the authorized representatives, we are confident that you will make your decisions calmly, carefully, and with the same sympathetic consideration for the needs of the people of this country that has characterized your actions in the past.

The results of your deliberations as expressed in this special session of the House of Delegates will be the guiding and determining voice for the medical profession, on those whom you authorize to make your voice effective, until the House of Delegates may at some future time determine any other action.

INVESTIGATION BY THE DEPARTMENT OF JUSTICE

Shortly after the termination of the National Health Conference, an announcement was released to the newspapers and to the press of the United States indicating that the Department of Justice of the United States Government proposed to seek an indictment of the American Medical Association as a monopoly, unless the American Medical Association, through its central organization or through its constituent society in the District of Columbia, consented to certain stipulations satisfactory to the Department of Justice in relationship to the nature of medical practice. An investigator from the Department of Justice has consulted some of the correspondence in the headquarters office of the American Medical Association. At no time has an official or unofficial communication ever been received from the Attorney-General of the United States, Homer Cummings, or from his assistant, Thurman Arnold, or from any other representative of the Department of Justice. The Association knows of this matter otherwise only through the statements released to the press.

In response to numerous inquiries that have come to the officers of the Association and to the headquarters, the statement has been made repeatedly that the American Medical Association welcomes investigation by any authorized agency of the nature of its organization, of its methods of work, of the conduct of its affairs and of its activities, firmly reliant on the belief that every action taken by the Association has been in accordance with its constitutional organization in the interest of the public welfare, and for advancing the standards and quality of medical service for the American people; and that at no time has it violated the established law of the federal, state or municipal governments of this country. Moreover, by the very nature of its organization, it has observed constantly the democratic principles on which the government of the United States is founded and maintained.

SOCIAL SECURITY ACT

As this House of Delegates is aware, the American Medical Association is a federacy of its constituent associations, established to promote the science and art of medicine and the betterment of public health. In accordance with the provision of the Social Security Act, an organization of this type is considered to be exempt from those stipulations of the Act assessing taxation. According to the original ruling of a deputy commissioner of internal revenue, the American Medical Association has been until recently exempt from these provisions. It has indeed proposed to establish voluntarily a plan for the security of the employees of the Association, and this plan was approved by the House of Delegates at the San Francisco session. More recently special interpretation of the law has been made by another deputy commissioner whereby the American Medical Association, formerly classified with educational and scientific groups, is now classified as a business league and required under the Act to pay considerable tax covering all its employees. Your Board of Trustees, after careful consideration, has determined to appeal from this interpretation and accordingly has employed special counsel to undertake the handling of this appeal to restore the Association to its original and proper classifications as a scientific and educational organization. The appeal made by your Board of Trustees is not an attempt to evade the requirements of any legislation enacted by the Congress of the United States. We have in the past conformed fully to every law, and it is our purpose that we shall continue to conform to the law if, as and when it may be established by the courts of the United States that the interpretation of the law by various governmental agencies is in accord with the opinion of the courts that this is the law.

* * *

Report of President Roblee

Concerning Special Meeting, House of Delegates American Medical Association, Chicago September 16 and 17, 1938

To the Council, California Medical Association:

Your president attended this meeting ex officio as an observer and adviser to the delegation. The fact that this was only the third special meeting called in the history of the House testifies to the importance attached to it by the Association. The official call specified that the session was limited to the consideration of the national health program submitted to the National Health Conference recently held in Washington, and to such other matters as might be submitted by the Board of Trustees. The first day was given over to the usual line of official speeches by the elected officers, the appointment of reference committees, and the submission of a shower of resolutions and plans by states, county societies, and individuals, all guaranteed to solve the complex problems of medical economics brought forward by the Health Conference report.

I could detect nothing new or startling in the addresses of the officials; they restated our attitude on the pending questions in a very fine way and served to while away a pleasant hour or more.

We were very much interested in the appearance before the House of some officials of the National Medical Association, which is the national organization of negro physicians, having a membership of five thousand negro doctors. One of their past presidents, Doctor Giles of Chicago, stated that at their annual meeting held at Hampton, Virginia, in August, they were visited by representatives of the Federal Government, who spoke to them in the interest of certain plans which were proposed to be introduced at the coming session of Congress which would lead to the initiation of state medicine in America. Doctor Giles reviewed the problems presented by the negro people. Their House of Delegates was not bewitched by the siren voice of socialized medicine and he pledged as follows: "In conclusion, may I say that we lend to you our support and our sympathies in the struggle that you have against the forces arrayed against you and promise you that, as far as humanly possible, we will give you our undivided strength." This coming from a group of citizens who have felt more keenly than any other the economic stress under which our nation has been laboring is indicative of the good judgment and desire to coöperate on the part of our colored colleagues, many of them living in sections where American Medical Association membership is denied them.

Our delegates went to the meeting uninstructed. On the train going East some of our delegates decided that this was the logical and opportune time to make certain changes in the code of ethics for the purpose of removing certain provisions that have handicapped state or county societies in establishing coöperative medical care by such units of organized medicine, and it was decided to introduce a resolution on the subject.*

*Editor's Note.—Resolution was introduced by Dr. Charles A. Dukes of Oakland and appears in this issue on page 320.

The resolution met with rather general favor, but it was finally ruled out of order by the Speaker and later by the Judicial Council as introducing a subject not involved in the call for the meeting.

This matter should not be allowed to drop. While some of us will be very reluctant to see the California Medical Association in the business of an insurance company purveying medical care, the way should be clear so that we will not stultify ourselves if such a course should become necessary. If the American Medical Association will not adopt such changes in the code, we should change the California Medical Association by-laws and eliminate all reference to the American Medical Association code and write and adopt our own code, as has been done in New York.

The most illuminating address of the meeting was made by Doctor Leland of the Bureau of Economics, wherein he summarized the various plans for medical care now under way in the United States. These are some three thousand in number, and he concluded as follows: "The most fortunate and hopeful feature of this development to provide means by which people may secure medical services lies in the fact that in the United States there has been and is yet the freedom to develop and direct efforts along dissimilar lines. As yet the road has not been closed by legislation to the search for a variety of appropriate ways of distributing medical services. Once that road is closed by legislation it will become increasingly difficult for county medical societies and other organizations to develop the measures that seem most appropriate for the local conditions of widely different communities."

The final report of the Reference Committee on consideration of the National Health Program reached the following conclusions. This is well summarized in an editorial in the JOURNAL as follows:

"Briefly the House of Delegates recommended expansion of public health services as related to the control of certain infectious diseases, maternal and infant welfare and similar projects, with the definite understanding that the need be established and that they be efficiently handled and economically controlled. The House of Delegates approved the principle of hospital insurance, again with the understanding that it cover only the facilities of the hospital and that professional standards be maintained. It approved the principle of cash indemnity insurance for meeting sickness costs, provided these efforts meet the requirement of state laws and that they have the approval of the county and state medical societies under which they operate. The House of Delegates again recognized the need for complete medical service to the indigent, at the same time emphasizing the desirability of local control. The House recognized that the necessity for state aid might arise in poorer communities and that the Federal Government might need to provide funds when the state is unable to meet these emergencies. The needs of the medically indigent were considered and a definition of medical indigence was supplied. Here the House felt that the determination must be made locally as to the group covered by this term, that control of the service should lie with local administration, and that available facilities should be utilized before new facilities were provided. Thus, the House of Delegates felt that there was but little need for the building of new hospitals or the establishment of new diagnostic centers, provided better utilization of hospitals and laboratories already functioning can be devised.

"Again the House of Delegates stated its firm opposition to any compulsory sickness insurance plan. Finally, it approved protection against loss of income during illness."

It is noteworthy that the report was adopted by unanimous vote.

One other subject of interest to us was the endeavor by one of the Conference committees to define medical indigency. I am not certain, as I read the minutes, whether it was officially adopted. It reads as follows:

"A person is medically indigent when he is unable in the place in which he resides, through his own resources, to provide himself and his dependents with proper medical, dental, nursing, hospital, pharmaceutical and therapeutic appliance care, without depriving himself or his dependents of necessary food, clothing, shelter and similar necessities of life, as determined by the local authority charged with the duty of dispensing relief for the medically indigent."

Respectfully submitted,

W. W. ROBLEE.

II

(COPY)

Resolution Introduced by Charles A. Dukes, M. D., Oakland, on Behalf of the California Delegation

WHEREAS, The great complexity and rapid changes in social and economic conditions, and in medical science and practice make it imperative, in the best interests of the people of the United States, to bring into being at an early day ways and means whereby adequate medical care may be given to all citizens, no matter to what income classes belonging; and

WHEREAS, The present organization of the American Medical Association, its constituent state medical associations, and their component county medical societies, is of a type and scope that would permit medical service of the best scientific standard and quality to be given by them in every portion of each state in the Union; and

WHEREAS, Existing ethical and procedure rules of the American Medical Association, its constituent state associations and their component county units, handicap plans designed to give the aforesaid service when the same are promoted, espoused, controlled or owned by constituent state medical associations, or by their component county medical societies, acting singly or in groups; and

WHEREAS, Recent trends and actions by political and other forces and agencies throughout the United States indicate that compulsory health insurance or similar systems that are not in accord with the ten principles adopted by the House of Delegates of the American Medical Association at the Cleveland annual session of 1933, are more than apt to be promulgated and thrust upon the people and the medical profession of the United States; with results that would undoubtedly lead to woeful deterioration in the standards and quality of medical service rendered to the people of our country; and

WHEREAS, Adoption by this House of Delegates, convened in special session in Chicago on September 16, 1938, of amendments to the "Principles of Medical Ethics of the American Medical Association," so worded to permit its constituent state medical associations or their component county medical societies, acting singly or in groups, to provide medical care and service, with or without hospitalization care or service, to citizen groups agreed upon by the before-mentioned state or county medical societies, would greatly aid in the solution of these public health and social problems; and

WHEREAS, It is of paramount importance for organized medicine to at once bring into operation principles and rules that will make it possible for state associations and their component county societies to sponsor or control or own medical care and service organizations as above outlined; and

WHEREAS, The existing "Principles of Medical Ethics of the American Medical Association," as given in Chapter III, Section 4, are so worded that constituent state associations and component county medical societies cannot solicit patient groups of certain income classes for whom more adequate medical service is indicated; the ethical principles as outlined in Section 4 of Chapter III, making it impossible for state and county units to engage successfully in competition with private medical service groups or organizations that have been brought into existence for profit; now, therefore, be it

Resolved, That we suggest that action be taken at the proper time to delete the first sixteen lines of Section 4 of Chapter III, Principles of Medical Ethics, beginning with the words, "Sec. 4—Solicitation of patients" and ending with the words, "has been or is concerned," and in lieu thereof there be substituted the following:

Sec. 4.* Solicitation of patients by physicians as individuals, or collectively in groups, by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional; *provided, however, that solicitation of patients by a constituent state association or its component county medical societies (the plan of a component county society having first received the approval of its respective*

* Portion of the text in italics, are the proposed amendments to Section 4, or interpretation suggestions thereof.

state medical association), acting singly or in groups, when said solicitation of patients is of an impersonal character and is done in the name of the aforesaid constituted units of organized medicine, and for the promotion of medical service plans controlled by such constituted units, and designed to give more adequate medical care, and service to citizens of certain stipulated income classes, and shall be permissible and shall not be construed as unprofessional. This does not prohibit ethical institutions *or constituted state or county medical society units* from a legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is *also* unprofessional for physicians as individuals, or collectively, or in groups, *when not acting officially for state or county medical societies, singly or in groups, as before indicated,* to procure patients by indirection through solicitors or agents of any kind or by indirect advertisement. It is *equally* unprofessional for physicians or individuals, or collectively in groups, by whatsoever name these be called, or by institutions or organizations, or *by constituted units of organized medicine as above outlined,* to procure patients by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician *or physicians have been* concerned.

Excerpts from Minutes of the Special Session—In re: Doctor Dukes' Resolution

In re: Resolution introduced by Dr. Charles A. Dukes of Oakland at the special session of the American Medical Association House of Delegates at Chicago on September 16 and 17. The following excerpts are references thereto, as taken from the official minutes of the session.

FRIDAY MORNING, SEPTEMBER 16, 1938:

Resolution on Change of Medical Care for the People.

Dr. Charles A. Dukes of California read a resolution on change of medical care for the people, which, the Chairman ruled, was not germane to the call.

FRIDAY AFTERNOON, SEPTEMBER 16, 1938:

Resolution on Change of Medical Care for the People.

Dr. Charles A. Dukes of California, in behalf of the California delegation, presented the following resolution, which was referred to the Reference Committee on Miscellaneous Business. [Resolution, as printed above, followed.]

SATURDAY MORNING, SEPTEMBER 17, 1938:

REPORT OF REFERENCE COMMITTEE ON MISCELLANEOUS BUSINESS

Dr. W. H. Seeman, Chairman, presented the following report:

"1. . . .

"2. *Resolution on Change of Medical Care for the People.* This resolution embodies a proposed change in the wording of Section 4 of Article I of Chapter III of the Principles of Medical Ethics of the American Medical Association so that it will read as follows:

"Sec. 4. Solicitation of patients by physicians as individuals, or collectively in groups, by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communication, is unprofessional; provided, however, that solicitation of patients by a constituent state association or its component medical societies, acting singly or in groups, when said solicitation of patients is of an impersonal character and is done in the name of the aforesaid constituted unit of organized medicine and for the promotion of medical service plans controlled by such constituted units and designed to give more adequate medical care and service to citizens of certain stipulated income classes, and when such plan or plans shall have been approved by the proper constituent state association, shall be permissible and shall not be construed as unprofessional." . . .

"The proponents of this resolution have convinced the Reference Committee that an emergency exists and that any undue delay in the adoption of this resolution might be prejudicial to the best interests of the public and organized medicine.

"Your Reference Committee, finding no established rule contrary to such action, recommends the adoption of this resolution."

The second section of the report was referred to the Judicial Council on motion of Dr. A. T. McCormack of Kentucky, seconded by Dr. Samuel J. Kopetzky of New York, and carried, after discussion.

The report of the Reference Committee was adopted as a whole, with the exception of the second section, which was referred to the Judicial Council, on motion of Doctor Seemann, seconded by Dr. A. T. McCormick of Kentucky, and carried.

SATURDAY AFTERNOON, SEPTEMBER 17, 1938:

The House reconvened at 2:10 p. m., Saturday, September 17, with Dr. H. H. Shoulders, Speaker, presiding.

REPORT OF JUDICIAL COUNCIL

Dr. George Edward Follansbee, Chairman, presented the following report, which was adopted on motion, duly seconded and carried:

"This is a special meeting of the House of Delegates called on the recommendation of the Board of Trustees to consider matters pertaining to the recent National Health Conference and such others as may be referred to it by the Board of Trustees.

"The subject of the amendment of the Principles of Medical Ethics is not included in the matters for which this special meeting was called nor has it been referred to this House by the Board of Trustees, for which reason the Judicial Council recommends that no action be taken on the resolution."*

III—Press Comments (a)

American Medical Association Warms Up to Federal Health Plans

A conciliatory attitude by the special session of the House of Delegates of the American Medical Association toward the Roosevelt Administration's $850,000,000 public health program was indicated at yesterday's Palmer House meeting.

While committees studied various proposals, the delegates adopted a resolution endorsing voluntary health insurance, with emphasis on the voluntary feature.

A proposal from the California Medical Association, presented by Dr. Charles A. Dukes of Oakland, to permit medical societies to advertise if the advertising is of an impersonal character, stirred discussion.

At the suggestion of Dr. Samuel J. Kopetzky of New York, the motion was referred to the judicial council.

While the Government's Health Program was studied, Dr. Roscoe G. Leland, Director of the Association's Bureau of Medical Economics, told the delegates thousands of members already are firmly established in the practice of socialized or tax-paid medicine.

More than three thousand medical-aid programs are under way in the nation, he said.

As far as direct government subsidies for medical care are concerned, Doctor Leland added, the farm security administration of the Department of Agriculture is making loans to groups of farmers who organize and hire physicians to care for members of the county organizations. At least five coöperative associations are already hiring physicians without Government aid.—Chicago *Tribune,* September 16.

III (b)

Doctors Defeat Proposal to Permit Impersonal Solicitation of Patients for Medical Service Plans

Dr. Charles A. Dukes of Oakland, California, threw the American Medical Association's House of Delegates into an uproar at the Palmer House today when he proposed a resolution permitting authorized "medical groups" or units, to use advertising promotion of any project agreed upon.

While agreeing that "advertising by any individual doctor is still unethical," Doctor Dukes insisted it should be allowable for a group of doctors, for instance, to promote through advertising a plan for group medical service. He added:

"This would be of an impersonal nature; the idea is that if a group of doctors could see its way clear to offer low-

* The call for the Special Session of the A. M. A. House of Delegates was printed in CALIFORNIA AND WESTERN MEDICINE, September, 1938, on page 221.

cost medical service, the group should have the right to present this matter to the public."

PROPOSAL VOTED DOWN

The resolution died an early death. Shouted demands that the proposal be submitted to the judicial council, a sort of "supreme court" of the American Medical Association authorized to pass on ethical questions, were granted.

The Dukes "advertising" measure was studied by the Council and then returned to the delegates with a report that it was "out of order and not proper business." The delegates then voted it down without debate.

In conformity with recommendations of officers' committees, the House of Delegates voted to support their trustees "to the utmost" in case of a Department of Justice indictment on monopolistic charges.

They also voted to appeal from the federal classification given them as a business organization, thus making them subject to taxation under the Social Security Act. The American Medical Association wants to remain classified as a scientific medical body.

Tabled for the time being was a proposal to send a request that President Roosevelt name a joint commission, including an American Medical Association group and a National Health Council group, to work out a dovetailed program of medical service. Dr. Thomas C. McGeldrick of Brooklyn pointed out such a plan had been attempted futilely for years.

Dr. Roscoe G. Leland, Director of the American Medical Association Bureau of Medical Economics, told the delegates there are already more than 3,000 medical-aid programs under way throughout the country.

SPONSORSHIP FOUGHT

Doctor Leland said the programs include payment plans endorsed by various local medical societies, and the hiring of doctors, nurses, and hospital facilities by rural coöperative organizations, business concerns, and government organizations.

The committee on the main issue of the convention—the delegates' stand on socialized medical service—had been split into five subcommittees.

The subcommittee on expansion of hospital facilities, said Dr. Holman Taylor of Forth Worth, believes it is better to use the facilities of existing hospitals than to build new hospitals.—Chicago *American,* September 17.

* * *

III (c)

Doctors Adopt Roosevelt's Health Plans

Society Upsets Tradition by Liberal Revision

Chicago, Sept. 17 (AP).—The American Medical Association Saturday upset tradition by adopting revisions in its policy on health and welfare which some members of its House of Delegates termed "progressive and almost revolutionary."

The delegates, meeting in a special session here for the past two days, approved with few dissenting votes or objections five recommendations which agreed in most major principles with the national health program outlined two months ago by President Roosevelt's Interdepartmental Committee on Health and Welfare.

AGREES WITH PREMISE

The committee had declared that the health of the people was a direct concern of the Federal Government. The Medical Association agreed Saturday that the health of impoverished persons should be protected with the use of state and federal funds when necessary.

The President's committee urged establishment of a federal department of health, the secretary of which would be a member of the cabinet. The Association agreed with the provision that "he must be a physician."

On the expansion of public health and maternal and child welfare services, the Association agreed with the committee completely.

The delegates backed the committee in its endorsement of better use of existing hospital facilities, but opposed the building of additional hospitals where they are not needed. They also endorsed plans for hospital service insurance and cash indemnity insurance policies which remunerate a person during prolonged illness.

OPPOSE COMPULSION

They opposed vigorously, however, any plan of compulsory health insurance, contending that it would be "a complicated, bureaucratic system which has no place in a democratic state" because it would lend itself "to political control and manipulation."

The delegates also expressed agreement with the president's committee on plans to compensate workers for loss of wages during illness and urged the expansion of workmen's compensation laws. The certification of a worker for such compensation should not be made by a private physician, however, they added, but by a medical employee of the concern employing the worker.

Officials of the medical profession actively opposed the $850,000,000 tax-paid national health program suggested at the National Health Conference in July.

Saturday, however, the delegates declared, "we advocate recognition of the principle that the complete care of the indigent is a responsibility of the community, the medical and allied professions, and that such care should be organized by local governmental units and supported by tax funds."

ENDORSE STATE PROGRAMS

They added that each state should develop a system to fulfill the recommendations of the National Health Conference when it declared that "the rôle of the Federal Government should be principally that of giving financial and technical aid to the states."

Hospital service insurance should be expanded "along sound lines," the delegates said, suggesting it is particularly adaptable as a community project under which a great many small cities and towns could obtain the benefits of a hospital. Many church, fraternal, and voluntary hospitals would be assured of maintenance, they added, if the cost of care of the medically indigent was returned to them from state or federal tax funds.

The care of the sick in any community is primarily a local problem to be dealt with by the local medical society, relief authorities and similar agencies, one recommendation of the House of Delegates said. It urged each local society to "develop appropriate means to meet local requirements," calling in the assistance of state and federal organizations if such action becomes necessary.

As the meeting closed, Dr. H. H. Shoulders of Nashville, Tennessee, Speaker of the House, appointed seven physicians to meet with a group of physicians of the Federal Government to discuss methods of coördinating health and welfare activities of private and Government medical workers.

Doctor Shoulders named Dr. Irvin Abell of Louisville, Kentucky, President of the Association, as chairman; Dr. Henry A. Luce of Detroit, Michigan; Dr. Frederic E. Sondern of New York City; Dr. Walter E. Vest of Huntington, West Virginia; Dr. Walter F. Donaldson of Pittsburgh, Pennsylvania; Dr. Fred W. Rankin of Lexington, Kentucky; and Dr. Edwin H. Cary of Dallas, Texas.

No date was set for the conference with federal authorities.—Salt Lake *Tribune,* September 18.

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III (d)

American Medical Association Ready to Battle Probe

Chicago, Sept. 20 (AP).—The American Medical Association served notice tonight it would oppose "with its utmost power" any attempt "to convict it in the eyes of the people of being a predatory, antisocial monopoly."

That attitude was outlined in an editorial in the organization's journal in the light of last week's meeting of the House of Delegates, governing body of the American Medical Association.

Commenting on a proposed investigation by the Department of Justice, "which seeks to obtain an indictment of the American Medical Association as a monopoly," the article set forth:

"The statement has been made repeatedly that the American Medical Association is ready for investigation by any

authorized agency, firmly reliant in the belief that its actions are in accordance with its constitutional organization, that they have been taken in the interest of public health and welfare and that it has never violated the established laws of this country."

In Washington today, Attorney-General Cummings stated the projected action was against the District Medical Society—and not against the American Medical Association.—San Francisco *Chronicle,* September 21.

* * *

Medicine Steps Forward

Both physicians and the public cannot but approve the decision of the House of Delegates of the American Medical Association to recede from its previous position and, on the whole, to endorse the Government's program with the exception of the provision for compulsory health insurance. Hospital insurance of the three-cents-a-day type, cash indemnity insurance which is supposed to meet the heavier costs of serious illness, the expansion of workmen's compensation laws to cover occupational ills, the utilization of federal and state funds to bring medical care to the indigent —these proposals, once repudiated, are now apparently accepted in principle. Even more important is the obvious willingness of the Association to assume the lead in laying down the new health policy and an implied intention of doing what it can to keep politics out of the kind of medical care that the poor are to receive.

Gratifying as this progress may be, crucial issues are still untouched. The plight of the class that barely earns enough to pay for food, shelter and clothing and has nothing left over wherewith to pay the doctor will undoubtedly be relieved. What of the many who cannot pay even reduced physicians' fees but can set aside regularly something for medical treatment? They must turn to the public hospitals or private charity. Yet the Association advocates more efficient use of existing hospital facilities in one breath and in another illogically insists that hospitals should not provide medical care. Moreover, workmen's compensation is to be expanded to include sickness benefits, but employers and employees must have nothing to do with salaried or contract medicine.

The public is waiting for a plan which will enlist all voluntary agencies in coping with the problem of illness before taxation is invoked. Coöperatives, clinics of the Mayo and the hospital type where physicians practice in groups, contract medicine whereby physicians on a salary or higher compensation basis are enabled to minister to the sick employees of a manufacturing company can be very effective. Must experimentation in these democratic directions still struggle under legal disabilities largely of organized medicine's creation? More concessions must here be made before the country will be convinced that the need of taxation has been reduced to an inescapable minimum.—New York *Times,* September 20.

* * *

IV

Report of Reference Committee on Consideration of the National Health Program*

Adopted at Special Session, House of Delegates, American Medical Association, Chicago, September 17, 1938

Since it is evident that the physicians of this nation, as represented by the members of this House of Delegates convened in special session, favor definite and decisive action now, your committee submits the following for your approval:

1. Under Recommendation I on Expansion of Public Health Services: (1) Your committee recommends the establishment of a federal department of health with a secretary who shall be a doctor of medicine and a member of the President's cabinet. (2) The general principles outlined by the Technical Committee for the expansion of public health and maternal and child health services are approved and the American Medical Association definitely seeks to coöperate in developing efficient and economical ways and means of putting into effect this recommendation. (3) Any expenditure made for the expansion of public health and maternal and child health services should not include the treatment of disease except in so far as this cannot be successfully accomplished through the private practitioner.

2. Under Recommendation II on Expansion of Hospital Facilities: Your committee favors the expansion of general hospital facilities where need exists. The hospital situation would indicate that there is at present greater need for the use of existing hospital facilities than for additional hospitals.

Your committee heartily recommends the approval of the recommendation of the Technical Committee stressing the use of existing church and voluntary hospitals could be assured by the payment to them of the costs of the necessary hospitalization of the medically indigent.

3. Under Recommendation III on Medical Care for the Medically Needy: Your committee advocates recognition of the principle that the complete medical care of the indigent is a responsibility of the community, medical and allied professions, and that such care should be organized by local governmental units and supported by tax funds.

Since the indigent now constitute a large group in the population, your committee recognizes that the necessity for state aid for medical care may arise in poorer communities and the Federal Government may need to provide funds when the state is unable to meet these emergencies.

Reports of the Bureau of the Census, of the United States Public Health Service, and of life insurance companies, show that great progress has been made in the United States in the reduction of morbidity and mortality among all classes of people. This reflects the good quality of medical care now provided. Your committee wishes to see continued and improved the methods and practices which have brought us to this present high plane.

Your committee wishes to see established well coördinated programs in the various states in the nation, for improvement of food, housing and the other environmental conditions which have the greatest influence on the health of our citizens. Your committee wishes also to see established a definite and far-reaching public health program for the education and information of all the people in order that they may take advantage of the present medical service available in this country.

In the face of the vanishing support of philanthropy, the medical profession as a whole will welcome the appropriation of funds to provide medical care for the medically needy, provided, first, that the public welfare administrative procedures are simplified and coördinated; and, second, that the provision of medical services is arranged by responsible local public officials in coöperation with the local medical profession and its allied groups.

Your committee feels that in each state a system should be developed to meet the recommendation of the National Health Conference in conformity with its suggestion that "The rôle of the Federal Government should be principally that of giving financial and technical aid to the states in their development of sound programs through procedures largely of their own choice."

4. Under Recommendation IV on a General Program of Medical Care: Your committee approves the principle of hospital service insurance which is being widely adopted throughout the country. It is capable of great expansion along sound lines, and your committee particularly recommends it as a community project. Experience in the operation of hospital service insurance or group hospitalization plans has demonstrated that these plans should confine themselves to provision of hospital facilities and should not include any type of medical care.

Your committee recognizes that health needs and means to supply such needs vary throughout the United States. Studies indicate that health needs are not identical in different localities but that they usually depend on local conditions and, therefore, are primarily local problems. Your committee, therefore, encourages county or district medical societies, with the approval of the state medical society of which each is a component part, to develop appropriate means to meet their local requirements.

* The "Reference Committee" consisted of twenty-five delegates divided into five groups of five members. Each group studied and considered one of the five major divisions of the report of the "National Health Conference" and reported thereon. The five subchairmen then drafted the report as a whole which, as such, was then considered and acted upon by the entire House of Delegates.

In addition to insurance for hospitalization, we believe it is practicable to develop cash indemnity insurance plans to cover, in whole or in part, the costs of emergency or prolonged illness. Agencies set up to provide such insurance should comply with state statutes and regulations to insure their soundness and financial responsibility and have the approval of the county and state medical societies under which they operate.

Your committee is not willing to foster any system of compulsory health insurance. Your committee is convinced that it is a complicated, bureaucratic system, which has no place in a democratic state. It would undoubtedly set up a far-reaching tax system with great increase in the cost of government. That it would lend itself to political control and manipulation, there is no doubt.

Your committee recognizes the soundness of the principles of workmen's compensation laws and recommends the expansion of such legislation to provide for meeting the costs of illness sustained as a result of employment in industry.

Your committee repeats its conviction that voluntary indemnity insurance may assist many income groups to finance their sickness costs without subsidy. Further development of group hospitalization and establishment of insurance plans on the indemnity principle to cover the cost of illness will assist in solution of these problems.

5. Under Recommendation V on Insurance Against Loss of Wages During Sickness: In essence the recommendation deals with compensation of loss of wages during sickness. Your committee unreservedly endorses this principle, as it has distinct influence toward recovery and tends to reduce permanent disability. It is, however, in the interest of good medical care that the attending physician be relieved of the duty of certification of illness and of recovery, which function should be performed by a qualified medical employee of the disbursing agency.

6. To facilitate the accomplishment of these objectives, your committee recommends that a committee of not more than seven physicians representative of the practicing profession under the chairmanship of Dr. Irvin Abell, President of the American Medical Association, be appointed by the Speaker to confer and consult with the proper federal representatives relative to the proposed National Health Program.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

By P. K. Gilman, M.D.
Chairman, Special Committee of the California Medical Association

"State Humane Pound Act*

With only a comparatively few days left in which to complete the campaign against the so-called "State Humane Pound Act," which will appear as Proposition No. 2 on the November 8 ballot, the aid of every medical man and woman in California, and of all their friends and acquaintances, is necessary if this misleading antivivisection measure is to suffer well-deserved defeat.

For a period of several months the California Society for the Promotion of Medical Research, to which was entrusted the task of organizing and carrying on a campaign against the proposed "Humane Pound Act," has been engaged in educating the voters on the real menace which hides beneath the camouflage of this latest attack upon medical research.

There has been a certain amount of apathy even on the part of those most directly concerned. But little by little the Society has brought before the public the real purposes back of the "Humane Pound Act." Attention has been called to the fact that if animal experimentation is crippled by enactment of such a law, the health of every man, woman and child in California, as well as of all domestic animals themselves, will be endangered.

The time has now come when every physician, dentist, nurse, scientist, and layman and woman in the state should constitute himself and herself into individual campaigners, working actively to enlist a huge "No" vote against Proposition No. 2. With the slogan, "Kill No. 2 or it may kill you," disseminated to all those who are asked to pass judgment upon this measure, it is believed that the antivivisectionists may be defeated so overwhelmingly as to dissuade them from making any further attack upon medical research for many years to come.

Physicians and surgeons in particular are urged by the Society to:

Discuss with their patients and friends the evils that lurk in the "Humane Pound Act," with its camouflaged title.

Enlist the solid support of every member of their county medical societies and of the Woman's Auxiliaries in presenting this initiative to the voters in its true light.

Write for literature to the California Society for the Promotion of Medical Research, whose offices are at 369 Pine Street, San Francisco, and 352 Chamber of Commerce Building, Los Angeles.

Make speeches against Proposition No. 2 whenever and wherever the opportunity affords.

Work without ceasing, up to and including election day, November 8, in mustering votes *against* the measure.

Endorsements of the work of the California Society for the Promotion of Medical Research, in its campaign to defeat the "State Humane Pound Act," have been received from nearly 150 organizations—lay, scientific, and medical. More are being received almost daily. In addition to those endorsements already published† the Society announces the following:

Lafayette Club.
California Milk Producers' Association.
California Dairy Council.
California Creamery Operators' Association.
American Association of Genito-Urinary Surgeons.
American Board of Ophthalmology.
Los Angeles Tuberculosis and Health Association.
San Francisco Tuberculosis Association.
American Dental Association.
Southern California Japanese Chamber of Commerce and Industry.
California State Nurses' Association.
American Society for the Hard of Hearing.
Pacific Zone.
The American Society of Parasitologists.

369 Pine Street.

Proposed Institutions Commission for the County of Los Angeles

Foundation Laid for Future Action

During the last year a number of articles presenting comment on certain procedures in the Los Angeles County General Hospital have appeared in California and Western Medicine.* It has long been felt by many physicians and citizens of that county that the conditions which were under criticism might probably have been avoided if the administration of the three charitable county institutions, established to care for the indigent and near-indigent sick, had been under the administration of an Institutions Com-

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

* For other articles in this issue on this subject, see references on page 252. Additional references in issue of September, 1938, on page 180.

† For other lists, see California and Western Medicine: August, 1938, on page 172; September, 1938, on page 242.

* For list of references see issue of June, 1938, on pages 396 and 475.

mission, modeled after the type which has done such excellent service for the county of Alameda since the year 1917.

More than 60,000 citizens are admitted as in-patients in the Los Angeles County General Hospital during each twelve months; and more than $5,000,000 are annually allocated to it for its maintenance operations. The tuberculosis hospital and adnexa (Olive View Sanatorium) and the County Farm (Rancho Los Amigos) use several million dollars in addition.

During recent years the administration of the three institutions has been combined with outdoor and associated relief (Department of Charities), this almost ten million dollar a year combination being under the control of a county employee (Superintendent of Charities) who in turn appoints hospital superintendents, etc.

It was proposed that the institutions named be taken from the Superintendent of Charities and be managed by an Institutions Commission composed of seven citizens, each member to be appointed for a seven-year term, the term of one member terminating each year. Thus, in the course of seven years, with receiving boards of supervisors three such boards would have opportunity to study and change the personnel of the Institutions Commission. On the other hand, the staggering terms would work for a continuity of policy, as has so splendidly been exemplified by the Alameda Institutions Commission.

On September 27 (the last day on which charter amendments could be considered for placement on the November 8 state election ballot) the proposed amendments were officially called to the attention of the Board of Supervisors of Los Angeles County (a body of only five members who supervise the expenditure of $60,000,000 yearly) by two groups—one, the Los Angeles County Grand Jury, now in session, and secondly, by the Los Angeles County Medical Association through a special committee acting under instructions from the constituted authority of that organization, its Council.

The matter was somewhat complicated because about five months ago an Advisory Committee to the County Hospital, consisting of nine citizens, by resolution was appointed by the Board of Supervisors. Supervisor Gordon McDonough, who is chairman of the Board's Committee on Institutions, stated he had not been consulted in regard to its establishment and that none of its members had ever spoken to him concerning the hospital. Dr. B. O. Raulston, who was present, volunteered the information that, as regards the personnel of the Advisory Committee, he had personally experienced considerable difficulty in having individuals thereon give permission to use their names; and that it was true that the Advisory Committee had never met, but that he could assure the Board the Advisory Committee would meet after the County Grand Jury had brought in its report.

In the presentation of the proposed amendments submitted by the Los Angeles County Medical Association, Dr. George Maner, Secretary of the Association, and Dr. George H. Kress, its recent president, spoke for the Special Committee.

The value of Institutions Commissions to supervise administration of the general hospitals, the tuberculosis divisions and its county farms, as they exist in the various counties of California, has been discussed for years. The ordinances of the Alameda County Institutions Commission appeared in California and Western Medicine, in the issue of June, 1938, on page 475.

Below are now printed the communications sent to the Board of Supervisors of Los Angeles County, as submitted by W. W. Nuzum, Chairman of the Grand Jury's Committee on Charities and Health (who visited and conferred with members of the Alameda Institutions Commission) and by the Special Committee of the Los Angeles County Medical Association, consisting of Doctors George D. Maner, John V. Barrow, and Fred B. Clarke. These communications, owing to their suggestive value, are of importance and should be of interest to all physicians who are interested in county hospital problems. For their future reference value they are given a place in this issue.

(COPY)

Letter to the Board of Supervisors from the Los Angeles County Grand Jury

Los Angeles, California,
September 27, 1938.

To the Honorable Board of Supervisors,
County of Los Angeles,
Los Angeles, California.
Gentlemen:

In the name of the Los Angeles County Grand Jury, I wish to submit a report on the Alameda County Institutions Commission which has been approved, and authorization given me to confer further with your Honorable Body relative to the proposed Charter Amendments for the establishment of an institutions Commission in Los Angeles County.

Respectfully submitted,
W. W. Nuzum,
Chairman of Charity and Health Committee,
Los Angeles County Grand Jury.

* * *

(COPY)

Report of the Committee on Charity and Health of the Los Angeles County Grand Jury

To the Los Angeles County Grand Jury:

What is now known as the *Alameda County Plan*, originated some time in 1917, at which time the Board of Supervisors of Alameda County, by resolution, created the County Institutions Committee. From time to time the powers and the scope of the Institutions Commission have been enlarged and adjusted to meet current needs.

ALAMEDA PLAN

Briefly, the Alameda County Plan is now coördinating the Alameda County's Charity program as it relates to hospitalization and the care of indigent sick, and also exercises some degree of supervision over the volunteer agencies that have become associated with the Commission for the purpose of forming a unified program dealing with medical and preventive care of all persons living in Alameda County. It is reported that under the Alameda County Plan, indigents requiring care, whether at the home of the indigent, by way of out-patient relief, or in a hospital in the county, is supplied at the expense of the county.

As to that class of persons falling in the bracket of the so-called middle class, that is those that are able to pay some part of the expense, the organized medical profession, through the Alameda County Medical Association, has agreed to take care of such patients on a part-pay basis, usually less than normal fees. It is reported that this part-pay program has been operating for several years, and was organized by mutual agreement between the Alameda County Medical Association and the Alameda County Institutions Commission. Such so-called middle-class patients who are unable to pay full fees but who are not eligible for county care because of failure to meet the legal requirements as indigents, are referred to members of the County Medical Association in rotation for such care as such patients may require.

The Alameda County Institutions Commission, in the administration of its various functions, provides free medical care for persons who meet the following requirements:

1. Legal residence of Alameda County and State of California.

2. Who require care in clinics, hospitals, sanitariums or preventoriums.

3. Who are unable to pay for such care at minimum rates without depriving themselves or their families of the basic necessities of life.

4. Whose responsible relatives are likewise unable to provide such care.

In the main, the Alameda County Institutions Commission renders free care only to persons who meet the statutory requirements as laid down by state law and county ordinance, which requirements are in all essentials similar to those of Los Angeles County.

The Institutions Commission of Alameda County functions through a medical director and administers:

1. The Highland Hospital for acute general patients, its emergency department together with its psychopathic ward.

2. The Fairmont Hospital for chronic patients, including tuberculosis patients of all types, and indigent patients.

3. The Arroya Sanatorium for tuberculosis patients.

4. The Del Valle Preventorium.

5. Clinics at Berkeley, Oakland, Alameda, San Leandro, and Hayward.

The Medical Social Service, such as is administered in Los Angeles County by the Superintendent of Charities, covering both in-patients and out-patients, is administered in Alameda County directly under the Institutions Commission, through its medical director. Originally there was a separation of functions between the medical part of the organization and the general executive part of the organization in Alameda County, but now those two functions are consolidated and both are administered by one man—the Medical Director—who is superintendent as well.

PRESENT LOS ANGELES COUNTY ORGANIZATION

The situation in Los Angeles County is, briefly, as follows:

The General Hospital is administered by two persons—one a medical man responsible for the professional standards, and the other a business man responsible for the business part of the institution. The Olive View Sanatorium is similarly administered, and the Rancho Los Amigos also has its own separate heads. While all of the institutions are nominally under one central head—the Superintendent of Charities—each one must of necessity steer its own course. It is manifestly impossible for one person acting as Superintendent of Charities to be in close contact with the intimate details of each of the institutions in Los Angeles County, especially when it is realized that our General Hospital alone is probably larger and spends more money than do all of the Alameda County Institutions combined.

PROPOSED CHARTER AMENDMENTS

The Los Angeles County Medical Association, acting through one of its special committees, is now proposing an amendment to the charter of Los Angeles County, by the terms of which amendment the Los Angeles County General Hospital, the Olive View Sanatorium, the Rancho Los Amigos, and the County Cemetery, would be under the exclusive charge of an Institutions Commission. The proposed amendment also provides that the Institutions Commission would have the power to appoint the superintendents and all other personnel and would have complete charge of the institutions, subject only to the general laws of the state in so far as the same provide for the approval of the County Board of Supervisors. If such an amendment is adopted and incorporated in the laws of the county, the Board of Supervisors would appoint an Institutions Commission who would in turn take over the complete responsibility for running the institutions above mentioned. The Superintendent of Charities, of course, would continue to administer, as heretofore, all matters of social service and general charity work except in so far as the same may relate to cases under the jurisdiction of the Institutions Commission.

ADVANTAGES OF AN INSTITUTIONS COMMISSION

It is pointed out that the Institutions Commission would be an independent nonpolitical organization entirely divorced from the Board of Supervisors and subject to no political domination. If appointments to such commission are made from among the citizens of this county who are public-spirited and qualified by experience and training to serve on such commission, unquestionably a great deal of good can be accomplished. The Institutions Commission at Alameda County is made up of business men, physicians, university professors, a dentist, and a police judge; and while I have had no opportunity to inquire into the detailed affairs of the Alameda County institutions, I am under the impression that the Commission has functioned efficiently throughout the years of its existence. Whether or not a similar commission in Los Angeles County will meet with the same degree of success depends, of course, upon the caliber of persons appointed to such commission and the integrity of the personnel through whom such commission will administer its affairs.

Respectfully submitted,

W. W. NUZUM,

Chairman of Charity and Health Committee, Los Angeles County Grand Jury.

(COPY)

Letter to the Board of Supervisors from the Special Committee of the Los Angeles County Medical Association

LOS ANGELES COUNTY MEDICAL ASSOCIATION

Los Angeles, September 26, 1938.

Honorable Board of Supervisors,

Fifth Floor, Hall of Records,

Los Angeles, California.

Gentlemen:

Attached hereto find certain proposed amendments to the Charter of the County of Los Angeles. These amendments are submitted by a special committee appointed to act for the Los Angeles County Medical Association. They have for their purpose a new administrative policy for the Los Angeles County General Hospital, Olive View Sanatorium, Rancho Los Amigos (County Poor Farm), and the County Cemetery.

The proposed amendments are the result of long and continuous study concerning the above-named institutions and the possible best method of administration of them. The plan proposed contemplates no experiment, because Alameda County in 1917 established such an institutions commission, and its citizens have given their loyal and almost unanimous support thereto. It is our belief that your Honorable Board may well submit these proposed amendments to the electorate of Los Angeles County on November 8.

We call your attention to the fact that these amendments simply provide that hereafter the administration of the four institutions above named, for which, collectively, an annual expense for maintenance and operation of between five and ten million dollars is allotted by your Board, would, if the Los Angeles County electorate approve, be under the supervision of an Institutions Commission composed of seven citizens whose wide experience in business and other administrative activities would give a guarantee of wise expenditure of public funds.

Your Honorable Board will note that the proposed amendments do not do away with the Department of Charities, or the Superintendent of Charities. The Superintendent of Charities would continue to carry on the very important function of public relief and allied activities subject to the instructions of your honorable body.

In other words, we are asking the Honorable Board of Supervisors to place the charitable institutions dealing with the sick under a group of seven citizens, whom the Board of Supervisors will appoint, instead of allocating this work, in addition to a multitude of other duties, to a single individual, namely, the Superintendent of Charities.

The attached amendments have been carefully drawn by competent legal counsel and, we believe, are so simply and carefully phrased that the County Counsel will need no prolonged deliberation thereon to give his opinion on their nature, scope, or applicability to the purposes in mind.

We, therefore, respectfully request the Honorable Board of Supervisors at its meeting on September 27, since that is the last day upon which a Charter amendment may be adopted for placement on the November 8 ballot, to so order.

Respectfully submitted by the Special Committee on Charter Amendments.

GEORGE D. MANER, M.D., *Chairman*

JOHN V. BARROW, M.D.

FRED B. CLARKE, M.D.

* * *

(COPY)

Proposed Amendments to Article IV, Section 14, and Article VI, Section 22, of the County of Los Angeles Charter

Dealing with (*a*) the county's charitable institutions: Los Angeles County General Hospital; Olive View Sanatorium; Rancho Los Amigos; County Cemetery; and (*b*) with the Department of Charities.

Article IV, Section 14, of the Charter of the County of Los Angeles is hereby amended by inserting immediately after the words "Horticultural Commissioner" the words, "Institutions Commission, members of," and by inserting after the words, "The Treasurer shall be ex officio tax collector and license collector," a new paragraph reading as follows:

1. There is hereby created a County Institutions Commission, consisting of seven members to be appointed by the Board of Supervisors. They shall hold office for the term of seven years, provided that, of these first appointed, one shall hold office for one year, one for two years, one for three years, one for four years, one for five years, one for six years, and one for seven years, from the effective date of this section. These first appointed shall classify themselves by lots as to terms of office. Whenever a vacancy occurs in the Commission, it shall be filled by the Board of Supervisors, and if for an uncompleted term, said appointment shall be made for the uncompleted balance of the term. Each member shall have been a resident of the County of Los Angeles for at least five (5) years immediately preceding his appointment. Members of the Institutions Commission shall be persons who have had wide experience in business administration, public welfare work, or in medical practice. Members shall receive Twenty-five ($25.00) Dollars for each meeting attended, provided that such compensation shall not be payable for more than three meetings in any calendar month.

Article VI, Section 22, of the Charter of the County of Los Angeles is hereby amended by striking out the present Section 22, reading as follows: "The Superintendent of Charities shall be under the direction of the Board of Supervisors, and shall exercise a general supervision over, and enforce rules and regulations for the conduct and government of, the charitable institutions of the county. He shall perform such other duties as may be prescribed by the Board of Supervisors or by law."
and by inserting in lieu thereof the following:

Sec. 22. (1) The Superintendent of Charities shall be under the direction of the Board of Supervisors, and shall exercise a general supervision over, and enforce rules and regulations for the conduct and government of, the Department of Charities. He shall perform such other duties as may be prescribed by the Board of Supervisors or by law.

(2) The Institutions Commission shall have the following exclusive powers and duties.

It shall have complete management and control and may make and enforce rules and regulations for the conduct and government of the charitable institutions of the county. It shall direct, supervise and control all activities of the General Hospital, Rancho Los Amigos, Olive View Sanatorium, and County Cemetery. It shall, when necessary, appoint an executive superintendent of the General Hospital, a superintendent of Rancho Los Amigos, a superintendent of Olive View Sanatorium, a superintendent of the County Cemetery, and other employees, and said appointees shall at all times be subject to its supervision and direction, and shall perform such other duties as may be prescribed by the Board of Supervisors or by law.

* * *

Press items in which comment is made on the proceedings before the Los Angeles Board of Supervisors, at its meetings of September 27, shed additional light on the subject:

Ask New County Charities Setup, Board of Seven

A special committee of the County Medical Association today proposed to the Board of Supervisors a sweeping change in the handling of Los Angeles County charitable institutions which would relegate the function of the Department of Charity to that of merely handling other relief phases.

Dr. George H. Kress, member of the Medical Association's Special Committee on Proposed Institutions Commission Charter Revision, proposed a charter amendment that would place the handling of the General Hospital, Olive View Sanatorium, Rancho Los Amigos, and the County Cemetery in the hands of a seven-man commission to be appointed by the Board of Supervisors. The commission would have full responsibility for the management of those institutions which are now under the Charity Department.

Would Appoint Seven

The new body would be called the Institutions Commission and be composed of seven appointees, holding office for seven years.

The proposal further stated that the members of this commission shall "be persons who have had wide experience in business administration, public welfare work or in medical practice," and that the members "shall receive $25 for each meeting attended, provided that such compensation shall not be payable for more than three meetings in any calendar month."

Doctor Kress, in making this proposal to the Board, stated that Alameda County has had a similar commission since 1917 and that it has worked there "in a beneficent manner."

Favors Trial of Plan

Supervisor Gordon L. McDonough, Chairman of the Institutions Commission of the Board of Supervisors, stated that he felt the proposal would have decided advantages, but that rather than adopting a charter amendment at this time he would favor the adoption of an ordinance to be used for a trial period.

Chairman Roger W. Jessup then strongly opposed a motion for the ordinance.

The motion for McDonough's trial ordinance failed, and McDonough then moved that the Board of Supervisors set up a committee to study the proposal.

The motion to set up a committee also failed of adoption and a motion from Supervisor Herbert C. Legg to place the matter on the table was adopted, with Supervisor McDonough's the only negative vote.

Dr. B. O. Raulston, member of the General Hospital Advisory Committee, which was appointed five months ago to advise on the General Hospital operation, spoke briefly at the request of Supervisor Ray Jessup.—Los Angeles *Herald-Express*, September 27.

* * *

Medical Group Seeks New Health Set-up

Commission to Control All of County's Institutions Sought

Transfer of control over the General Hospital and all other county health institutions from Charity Superintendent Rex Thomson to a proposed new institutions commission of seven members was urged upon the Board of Supervisors today by the Los Angeles County Medical Association.

The committee, in a letter to the supervisors, asked that an amendment to the county charter to bring about such changes be placed on the November 8 ballot. The committee membership is composed of Drs. George Maner, John V. Barrow and Fred B. Clarke.

Suggest Seven-Man Board

Suggestions of this committee were that the charter amendment create an institutions commission of seven members of wide experience in business administration, public welfare and medical practices. Members would be paid $25 per meeting for not more than three meetings per month and terms of office would extend for three years.

The charter amendment group would give this commission complete control over all county institutions with power to name executive superintendents to operate them.

Thomson Would Lose Control

Another amendment to the charter sought by the committee would change the charter amendment which gives the superintendent of charities supervision over county institutions.

This would strip Charity Superintendent Thomson of his present control over the General Hospital, the County Farm and the Olive View Sanatorium.

The supervisors will consider the request tomorrow.—Hollywood *Citizen-News*, September 26, 1938.

COMPONENT COUNTY MEDICAL SOCIETIES

SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held in Stockton on September 1. The regular meeting was preceded by the customary supper meeting at the Hotel Wolf. It was decided that the supper meetings would convene at 6:30 p. m. instead of 7 p. m., so as to give the local speaker more time. There was no prepared paper for this meeting on account of dove season opening on this date.

The regular meeting was called to order by the secretary, Dr. G. H. Rohrbacher, in the absence of the president and the two vice-presidents. The Chair appointed Dr. C. A. Broaddus to act as president *pro tem*

The application of Dr. Dora Ames Lee having been reported on favorably by the Membership Committee, and there being no objections from the floor, was declared a member. The applications for membership of Dr. Phillip V. Lamb of Angels Camp, Doctor Edward C. Faulkner and Dr. F. S. Dietrich of Stockton, were read and referred to the Membership Committee. Dr. Dewey Powell delivered a eulogy on the passing of Dr. James Porterfield Hull.

Dr. C. A. Broaddus and the Committee on Postgraduate Activity reported on the Postgraduate Committee's plans for the fall postgraduate session, and also reported on the progress of the formation of the "Medical Academy of Graduate Study" in Stockton. The secretary relinquished his post temporarily and moved that, because of the many changes in the by-laws and constitution of the local medical society, a committee be appointed to draw up and submit to theSociety a new set of by-laws and constitution to conform as much as possible with that of the California Medical Association's. This motion was seconded from the floor and passed.

The meeting was then turned over to Dr. Henry Rixford, who before introducing the speakers of the evening, informed the Society of the action taken by the San Joaquin County Kennel Club in organizing opposition to the "Humane Pound Act," and the secretary was requested to write each of the component county societies informing them of the action taken and suggesting that they contact the various kennel clubs in their jurisdiction, and make an effort to have these kennel clubs go on record actively against the passage of the "Humane Pound Act."

Doctor Rixford introduced the speakers of the evening. Leonard Dobson, Associate Professor of Surgery at Stanford University, spoke on the *Present Status of Injection Therapy of Hernia,* and Nelson Howard, Associate Professor of Surgery at Stanford University, spoke on *Fractures of the Shoulder Girdle and Upper Arms.* Both papers were well illustrated by slides and occasioned much interest.

The meeting was adjourned at 11:30 p. m. and refreshments were served. G. H. Rohrbacher, *Secretary.*

SAN MATEO COUNTY

The meeting of the Board of Directors of the San Mateo County Medical Society was held Wednesday, August 31, at 9 a. m. in the library at Mills Memorial Hospital.

The secretary announced that the Board of Supervisors of San Mateo County had appropriated a fund amounting to $5,000 to be used in establishing clinics throughout the county to make clinical facilities available to the indigent sick at points less removed from their homes than the present Community Hospital Out-Patient Clinic, and at the same time to lift some of the load from the department at the Community Hospital. Tentative arrangements involved the payment to physicians attending the clinic, at a rate of $5 per hour. Four clinics to be established: one in Redwood City, one in Burlingame, one in Colma, and one in Half Moon Bay. Clinics to be open from four to six hours per week, a nurse and a Social Service worker to be in attendance at each clinic during its operation. The secretary mentioned the fact that Doctor Gans had requested the coöperation of the County Medical Society in establishing the clinics.

Following the presentation of this matter there was considerable discussion, centering to some extent about the fact that $5 per hour did not constitute adequate pay for the physician's time. After considerable debate the Board voted to coöperate with the County Department of Public Health in the establishment of these clinics. There was one dissenting vote. Doctor Gans and Mr. Packwood arrived at the end of the meeting and when informed of the action of the Board assured the Board members present that the County Department would assist the physicians, especially in the matter of the Social Service work, and would leave the professional end of the operation of the clinics entirely to the San Mateo County Medical Society. The Board requested the secretary to ask for volunteers from the members of the San Mateo County Medical Society and to prepare a panel whereby volunteers will be rotated in their service at each division clinic.

A letter from Doctor Tormey, Director of the Adult Center at the San Mateo Junior College, concerning the establishment of a course in domestic relations to be handled by a professional man, preferably a local one, was read. The Board suggested the name of Dr. Erma Macomber to teach the women, and Doctors Holmes, Whitney, Benner, and Mawdsley to teach the men.

The secretary read two letters, one from a group representing the University Women's Club and one from Doctor Buckham, Secretary of the Burlingame and San Mateo Ministerial Association, requesting the Medical Society to support with their interest a survey into the public health situation in San Mateo County to be conducted by the United States Department of Public Health. The Board unanimously voted its approval of such a survey and directed the secretary to communicate with the Board of Supervisors of San Mateo County to this effect.

J. Garwood Bridgman, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (20)

Alameda County

Max Eichwald
E. E. Hessing
Reinchard Lewin
George Frank Mainwaring
Henry S. Patton
Paul C. Rahn
A. Bradley Rankin
Clarence Splithoff
Jacob J. Yee

Kern County

Newell J. Brown, Jr.
John J. McCarthy

Lassen-Plumas-Modoc County

James Willis Crever

San Diego County

Martin F. Bancroft
Albert R. Egan
Arthur J. Present

San Joaquin County

Dora Ames Lee

Santa Cruz County

Gail L. Fleming

Sonoma County

Thomas E. Albers
Harold E. Lohlein
Pauline Longnecker

Transferred (1)

Parker Hollingsworth, from San Diego County to Alameda County.

Resigned (1)

Thomas J. Rankin, from San Diego County.

In Memoriam

Clark, Edward Perry. Died at Los Angeles, September 5, 1938, age 65. Graduate of Hahnemann Medical College and Hospital of Philadelphia, 1897. Licensed in California in 1919. Doctor Clark was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✝

Galbraith, George Herbert. Died at Long Beach, September 11, 1938, age 63. Graduate of St. Louis University School of Medicine, 1904. Licensed in California in 1906. Doctor Galbraith was a member of the Los Angeles County Medical Association, the California Medical Association, and the American Medical Association.

✝

Hovde, Anders G. Died at Los Angeles, August 14, 1938, age 63. Graduate of the University of Minnesota Medical School, Minneapolis, 1903. Licensed in California in 1917. Doctor Hovde was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Orr, Jane. Died at Oakland, August 19, 1938, age 66. Graduate of Tufts College Medical School, Boston, 1901. Licensed in California in 1904. Doctor Orr was a member of the Alameda County Medical Association, the California Medical Association, and the American Medical Association.

✝

OBITUARIES



Theodore E. Schwarz
1877–1938

Dr. Theodore E. Schwarz was born on August 9, 1877, in Cincinnati, Ohio. His college preparatory work was taken at the Ohio Military Institute and he was graduated in medicine from the Ohio-Miami Medical College, now the medical department of the University of Cincinnati, in 1900. His interneship was served at the German Deaconess Hospital in Cincinnati, following which he entered into the practice of medicine which he followed in various places for the next eighteen years. At the beginning of the World War he was commissioned an officer in the Medical Corps and was placed in charge of a field hospital and attached to the first division. He served in France, with duties in the front lines for many months, received an injury from a shell explosion which crushed his right shoulder and incapacitated him for further practice in his chosen profession. After his return to this country he was employed by the United States Public Health Service and assigned to the hospital at Palo Alto, California, where he served for two years. He then took a year's postgraduate work at the University of California, and for two years was in the tuberculosis hospital at Denver, Colorado, where he was assistant superintendent, serving at the same time as a staff physician. He was appointed as District Medical Officer and assigned to the United States Veterans' Bureau Hospital at Phoenix, Arizona, and served the Bureau, also, at Birmingham, Alabama, and as assistant to the Clinical Director at the United States Veterans' Hospital at Aspinwall, Pennsylvania. In 1928 he received appointment as assistant superintendent of Alameda County Hospital in Oakland, California, and entered upon his duties in that institution on July 15. He served continuously in that capacity until August 4, 1938, the day of his death.

The end came suddenly, he having been in good health, carrying on his duties up to within two hours of the time of his passing. Doctor Schwarz was well trained in administration, and devoted the last years of his life primarily to the duties of a medical administrator. As a hobby, he became interested in clinical photography, and his scientific pictures, particularly those of cancer, are known to medical men throughout the nation. He has received favorable notice in numerous scientific publications and in connection with this contribution has received the praise of experts in the field.

He was devoted to the care of the sick; he was kind and sympathetic in his treatment of those with whom he came in contact, and a source of strength as he gave sympathetic interpretation to the relatives and friends of patients confined in the county hospital where he presided.

He was well known as a lecturer and writer; he spoke frequently before scientific bodies and service clubs. He had been prominent in Masonic circles and was past master of the Clay Center Kansas Lodge, F. and A. M. He was a member of the Alameda County Medical Association, the California State Medical Association, and the American Medical Association. He retained membership in many civic and fraternal organizations.

There remains to mourn his loss, his wife, Mrs. Edna G. Schwarz, and four children—Theodore J., Frank I., Dorothy A., and Edward C. His fine character and outstanding ability in his chosen profession made for him a wide circle of friends, particularly among the poor and needy, who will miss his kind words, his sympathetic interest and his prompt attention to the medical problems which they presented. By his death he will be missed by his numerous friends in the medical profession, as well as many associates who have known him for the splendid physician that he was and the fine service that he rendered.

* * *

WHEREAS, God in his infinite wisdom has seen fit to remove from our midst our friend, colleague and personal associate, Dr. Theodore E. Schwarz, who, by virtue of his position in public service in this county, has made the acquaintance of so many of us and retained the friendship of all; and

WHEREAS, His passing is a source of deep regret to all of his friends and acquaintances; and the splendid work which he carried on in the promotion of public medical service, the development of a technique in the illustration of important cases and the sympathetic understanding which he gave to all of his professional and administrative problems has endeared himself to all with whom he came in contact; therefore, be it

Resolved, That the Alameda County Medical Association, in regular meeting assembled on this nineteenth day of September, do hereby express these sentiments and pay our tribute to this departed member. That a copy of this resolution be spread upon the minutes of the Association and that a copy be sent to his devoted wife, as a token of our sympathy and appreciation.

(Signed): B. W. BLACK, M.D.
I. O. CHURCH, M.D.

✝

James Porterfield Hull
1872–1938

On July 22, 1938, Dr. James Porterfield Hull passed on to his final reward. Stricken with a heart attack while on a vacation at Lake Tahoe three weeks before, it was well known that Jim Hull had been critically ill. However, reports had been received of his improvement, and it was with a sense of shock as well as personal loss that the members of the San Joaquin County Medical Society received the news of his death.

Doctor Hull was born in Pennsylvania on the twentieth day of March, 1872, and received his education in the public school of San Joaquin County and in the San Joaquin Valley College at Woodbridge prior to his graduation from the California Medical School in 1895. He practiced in Lodi from 1896 to 1905 and then, after a year of postgraduate work at the New York Polyclinic, he practiced in Stockton from 1906 to 1912. He then went to Bakersfield, where he practiced from 1912 to 1920. During most of the time he was superintendent and surgeon-in-chief to the Kern County Hospital. He practiced in Stockton from 1920 until the time of his death.,

Besides engaging in general practice he was surgeon for the Holt Caterpillar Company before their removal from the city, and also surgeon for the Southern and Western Pacific Railroads as well as examiner for most of the leading insurance companies.

Jim Hull had a long and active period of service in the practice of medicine. In spite of his forty-three years of work, he was very keenly interested in the progress of medicine. He was active in the postgraduate study committee for the past several years in this Society, and was one of the regular attendants at the county meetings and at the Saint Joseph staff meetings. Over the latter organization he had recently served as president, and in years

past has served this county unit both as president and as secretary.

As recently as last March, on the occasion of his sixty-sixth birthday, he held open house in the Medico-Dental clubrooms, to which he invited all the tenants of this building and their nurses and office secretaries. I well remember that he remarked to me on that day that he felt that they were all his friends and that he certainly wanted them to all be his friends, so he had included the entire building and its personnel in his birthday party.

Indeed the Medico-Dental clubrooms had been his pride. As chairman of the committee which selected its equipment and furnishings, he gave it more time and study than he would had it been his own home. As a member of that committee I know full well that the time and the care and infinite attention to detail that he gave to the carrying out of the duties as chairman of the House Committee. So it was indeed fitting that in these rooms that meant so much to him that the entire building shared in the festivities of his last birthday party.

Yes, Jim Hull is gone, but to those who knew him through the years, and to the great number of patients who benefited by his counsel and skill, his memories linger on. To the younger men of the profession, forty-three years of service will offer a splendid example in establishing their own record in the profession.

DEWEY POWELL.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION †

MRS. CLIFFORD A. WRIGHT.....President
MRS. FRED H. ZUMWALT.....Chairman on Publicity
MRS. FRANK H. RODIN....Assistant Chairman on Publicity

News Letter

We have had a very healthy year for membership and hope that the increase will continue from year to year, for in numbers there is strength.

The task before us now is health education. It is very important that every member be well informed. To study individually and in groups will help our members to be prepared when they can be of assistance to the medical profession and to the community in which they live.

A very fine library has been established by the Woman's Auxiliary to the California Medical Association. There are also a number of interesting plays which are very suitable for children to present on school programs. They are educational and entertaining, and will be welcomed by the teachers in your community.

These books and plays are available for your use and will be sent to you if you will communicate with the librarian, Mrs. Arthur T. Newcomb, 1 Richland Place, Pasadena. The following is a list of books in the library:

BOOKS

The Lame, the Halt and the Blind, Howard W. Haggard, M.D.
Devils, Drugs and Doctors, Howard W. Haggard, M.D.
Fads and Quackery in Healing, Morris Fishbein, M.D.
One Hundred Thousand Guinea Pigs, Arthur Kallet and F. J. Schlink.
The Life of Pasteur, Rene Vallery-Radot.
The Story of Medicine, Victor Robinson, M.D.
Behind the Doctor: The Romance of Medicine, Logan Clendening.
The American Doctor's Odyssey, Victor Heiser, M.D.
Guiding Your Life, Josephine Jackson, M.D.
Outwitting Our Nerves, Josephine Jackson, M.D.
Applied Eugenics, Paul Popenoe.
Conservation of the Family, Paul Popenoe.
Sterilization for Human Betterment, Popenoe and Gosney.
Eugenics, Genetics and the Family, Vol. I, Eugenics in Race and State, Vol. II, Papers of the Second International Congress of Eugenics.
American Medicine, Sigerist.
Biological Basis of Human Nature, H. S. Jennings.
The Nervous Child, H. C. Cameron.
What About Alcohol, E. Bogen and L. Hisey.
Nutrition and Physical Fitness, L. J. Bogert.
Home Care of the Sick, N. Selbert.
Personal Hygiene Applied, Jesse F. Williams.
Your Carriage, Madam, Lane.
Modern Motherhood, C. E. Heaton.
Adolescense; Studies in Mental Hygiene, Frankwood Williams.
Birth Control, Its Use and Misuse, Dorothy D. Bromley.
Help Yourself to Beauty, Cocks.
Hygiene of Community, School and Home, E. W. Steel and E. G. White.
Tobacco, W. L. Mendelhall.
Curative Value of Light, E. M. Mayer.
Your Heart and How to Take Care of It, R. H. Babcock.
The Wholesome Personality, William Burnham.
The Phychology of Sex, Havelock Ellis.
Cancer: What Everyone Should Know, J. A. Tobey.
The Human Body, Logan Clendening.
Sex Hygiene; What to Teach and How to Teach It, A. Worcester and H. K. Oliver.
Why Be Tired? Joselyn.
Nostroms and Quackery, American Medical Association.
Getting Well and Staying Well, John Potts.
The Samaritans of Molokai, C. J. Dutton.
Why Die Before Your Time? H. S. Williams.
Mental Hygiene in the Community, Clara Bassett.
Normal Diet and Healthful Living, Sansum.
American Men of Science, Cattell and Cattell.
Paying Through the Teeth, Bissell Palmer.
Facts and Frauds in Women's Hygiene, Greenberg.
Methods and Materials of Health Education, J. F. Williams and F. Shaw.
Community Hygiene, L. Chenoweth and W. Morrison.
Man the Unknown, Alexis Carrell.
History of Medicine, Fielding H. Garrison, M.D.
Disease and Destiny, Major.
Short History of Medicine, Singer.
Rats, Lice and History, Zinsser.
Health of the Runabout Child, Lucas.
Great Doctors, Segerist.
Minute Men of Life, Lambert and Goodwin.

PLAYS

Good Health Elves.—Particular attention is paid to the health rules frequently broken by children. Seventeen to twenty-five characters suitable for fifth and sixth grades; production time about thirty minutes.

The Trial of Jimmy Germ.—Jimmy Germ is banished from the kingdom of Health by Sunshine, Fresh Air, Soap, etc. Eight characters, suitable for fifth and sixth grades; production time five minutes.

The Friendly Brushes.—Scrubbing brush, tooth brush, nail brush, and all other brushes wear themselves out keeping things clean along Healthway. Eleven characters, suitable for fourth and fifth grades; production time ten minutes.

The Magic Fluid.—(Diphtheria Antitoxin) with chorus, "King's Subjects." Science brings magic fluid (serum) to service of Kingdom of Youth, etc. Eight characters, suitable for sixth and seventh grades; production time fifteen minutes.

On Board the S. S. Health.—Six little headaches and five colds are not wanted on board S. S. Health, but five nursery rhymes with their health stories are welcome passengers. Twenty characters, suitable for fourth and fifth grades; production time ten minutes.

The Gift a King Accepts.—King of Land of Gluttony accepts gift of health and learns about cleanliness, food, exercise, sleep. Fifteen characters, suitable for seventh and eighth grades; production time fifteen minutes.

The School Lunch Room.—Undernourished boy learns about milk, vegetables, etc. Eleven to twenty characters, suitable for fifth and sixth grades; production time fifteen minutes.

The Medicine Men.—A puppet play. Gin Lee, little Chinese boy, and David Scott, an American, both have diabetes—Chinese and modern medicine. Seven characters, suitable junior high school students; production time ten minutes.

"Sissy."—Proper health habits made a regular boy out of a "Sissy." Four characters, suitable junior high school or high school; production time fifteen minutes.

King Smog.—One-act play on the smoke evil. Thirteen characters, suitable junior high school students; production time ten minutes.

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Frank H. Rodin, Assistant Chairman of the Publicity and Publications Committee, 2457 Bay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Rodin, and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

Note.—The *Courier* went to press on October 15, and will be in the hands of the members by November 1.

Any member who does not receive her copy of the *Courier* or the *National News Letter* kindly inform Mrs. Fred H. Zumwalt, 3880 Clay Street, San Francisco.

Mrs. Frank H. Rodin.

Official Notices

State Board Meeting

The fall meeting of the Board of Directors of the Woman's Auxiliary to the California Medical Association was held at the Casa Del Mar Beach Club in Santa Monica, on September 7, at 10 a. m. The president, Mrs. Clifford Andrews Wright, presided.

Those present were:

Officers—Mesdames Clifford Andrews Wright, A. E. Anderson, George Calvin, G. Wendell Olson, and E. Eric Larson.

Councilors-at-Large — Mesdames T. A. Card, R. S. Kneeshaw, and Fred H. Zumwalt.

District Councilors — Mesdames F. G. Lindemulder, Horace H. McCoy, Edward Markthaler, J. R. Walker, Lawrence M. Knox, Harold Trimble, and James F. Percy.

County Presidents—Mesdames Frank Baxter, Oakland; Hiram Currey, Orange; W. W. Roblee, Riverside; C. O. Tanner, San Diego; and H. E. Henderson, Santa Barbara.

At noon the Board members were the guests of the Woman's Auxiliary to the Los Angeles County Medical Association at the Casa Del Mar Beach Club. The county's president, Mrs. William H. Leake, presided, and graciously presented Mrs. Clifford Andrews Wright, who then introduced her Board members. Mesdames Paul Dougherty and Cullen W. Irish were responsible for the arrangements and the artistic floral decorations of giant multicolored dahlias.

Component County Auxiliaries

Alameda County

The opening meeting of the Woman's Auxiliary to the Alameda County Medical Association was held on Friday, September 16 at the Clairmont Country Club. Mrs. Frank Baxter, President, presided. About one hundred members and guests met for luncheon.

Mrs. Clifford A. Wright, State President, was the guest of honor while on a visit to counties in the North.

The program chairman, Mrs. I. O. Church, presented Mr. Ben H. Read, Executive Secretary of the Public Health League of California, who spoke on *Legislative Measures Affecting Medicine.*

Mesdames Clarence Page and A. A. Alexander, as hostesses, greeted all the new and old members and guests. Mrs. R. A. Crum was responsible for the reservations.

Mrs. Grant H. Ellis, *Publicity Chairman.*

Los Angeles County

The first general meeting of the Los Angeles County Auxiliary was held on September 27 at the County Medical Building. The president, Mrs. Leake, was in the chair.

After luncheon, the guest speaker, Dr. B. O. Raulston, Professor of Medicine, University of Southern California, pointed out the serious consequences in the passage of the *Humane Pound Act.* Representatives of the press and members of the Tail Waggers' Association were invited guests.

Matters discussed at the business meeting were the County Medical Indigent Fund for the poor and needy and classes for public speaking.

Mrs. Karl O. Von Hagen, *Publicity Chairman.*

San Francisco County

The first general meeting of the Woman's Auxiliary to the San Francisco County Medical Society was held on Tuesday, September 20, at 1:30 p. m. in the County Medical Society Building. The president, Mrs. Thomas E. Gibson, presided.

The chairmen of arrangements of the convention of the Woman's Auxiliary to the American Medical Association, held last June, were the honored guests of the San Francisco County Auxiliary, in appreciation of the splendid services rendered.

After a short business meeting, Dr. M. L. Tainter spoke on the *Humane Pound Act.* Representatives of lay organizations were invited to hear Doctor Tainter on this very vital subject so that they may be informed and report to their organizations the importance of permitting the medical profession to continue scientific medical research.

After the meeting the members and guests were invited to tea, which was graciously presided over by Mesdames A. L. Brown and Fred D. Fellows and their committee, who were the hostesses of the day.

Mrs. Clain F. Gelston, *Publicity Chairman.*

Santa Barbara County

The June meeting of the Santa Barbara County Auxiliary was held at the home of Mrs. Harold Schwalenberg. Twenty members were present.

Brief informal reports of the State Convention were given by Mesdames John Paying, E. J. Markthaler, C. W. Henderson, H. Verrill Findlay, and H. E. Henderson.

The Santa Barbara County Auxiliary joined a number of other women's organizations and the County Council of Social Agencies to support a lecture on *Sex Education* given by Dr. Benjamin Greenberg on June 3.

Through the contribution of fifty cents by each member, two needy Girl Scouts were sent to camp for two weeks each.

At the close of the meeting the following officers were installed: Mrs. H. E. Henderson, president; Mrs. A. T. Wilcox, first vice-president; Mrs. O. C. Jones, second vice-president; Mrs. C. W. Henderson, recording secretary; Mrs. H. V. Findlay, treasurer; Mrs. P. A. Grey, corresponding secretary.

* * *

On September 13, Mesdames H. E. Henderson and Edward Markthaler were guests at a dinner meeting held by members and their wives of the Ventura County Medical Society at Saticoy. The members of the Santa Barbara County Auxiliary were invited by the doctors' wives of Ventura County to discuss the purposes and duties of an Auxiliary.

Mrs. H. E. Henderson, *President.*

Tulare County

On Wednesday, September 14, the Woman's Auxiliary to the Tulare County Medical Society met at the home of Mrs. J. C. McClure in Lindsay.

At the close of the business meeting our State President, Mrs. Clifford A. Wright, addressed the members.

Other guests of the State Board were: Mrs. E. Erick Larson of Los Angeles, and Mesdames A. E. Anderson and J. R. Walker of Fresno.

Mrs. W. B. Parkinson, *Corresponding Secretary.*

"May I suggest, with respect to health education, that until we can establish some of our teaching on a more sound scientific foundation, we give a little less emphasis to personal hygiene habits—especially in our schools, teach the individual the importance of personal immunization, early medical care and diagnosis in illness, and impress upon him the value of community-wide environmental sanitation measures. We also need another kind of health education—what I call 'political' education—acquainting the public with what the health department can do, what its objectives are and what its achievements have been. This aspect of our health education program has been sadly neglected in many sections of the country in the past. There is urgent need for teaching these things—interpreting health needs and the health program to the 'man on the street,' and the woman in the home."—Dr. C. E. Waller, U. S. P. H. S.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, St. Louis, Missouri, May 15 to 19, 1939. Olin West, M.D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

California Medical Association, Hotel Del Monte, May 1 to 4, 1939. George H. Kress, M.D., Secretary, 450 Sutter Street, San Francisco.

* * *

American College of Surgeons, New York, October 17 to 21, 1938. George W. Crile, M.D., 40 East Erie Street, Chicago, Chairman, Board of Regents.

Pacific Association of Railway Surgeons, Los Angeles, October 7 and 8, 1938. W. T. Cummins, M.D., Secretary, Southern Pacific General Hospital, San Francisco.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of October is as follows:

Saturday, October 1—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, October 6—KECA, 11:00 a. m., The Road of Health.
Saturday, October 8—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, October 13—KECA, 11:00 a. m., The Road of Health.
Saturday, October 15—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, October 20—KECA, 11:00 a. m., The Road of Health.
Saturday, October 22—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, October 27—KECA, 11:00 a. m., The Road of Health.
Saturday, October 29—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Silicosis.—Addressing the World Silicosis Conference, under the auspices of the International Labor Office, Geneva, Switzerland, Dr. R. R. Sayers, Senior Surgeon of the Division of Industrial Hygiene of the United States Public Health Service, declared it was the view of his Division that no worker should be removed from work to which he is accustomed, and at which he is able to earn his living, merely because a diagnosis of simple silicosis has been made.

"We hold, rather," Doctor Sayers explained, "that the atmospheric dust in which he works can and should be brought within safe limits. If this is done, his silicosis will not, we feel, advance appreciably more rapidly than if he were made a clerk or given outdoor employment. And if it is not done, removing him and putting a fresh man in his place will expose another worker to the same hazard.

"We urge that the man be left and the dust removed, rather than that the dust be left and the man removed.

"When active tuberculosis exists, it is another matter. Every tuberculous worker should be removed from a dusty industry, put under treatment and not permitted to return. Any further exposure to silica will be harmful to him and he constitutes a danger to his fellow workers."

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

New Director of La Vina Sanatorium.—Announcement has been made that Dr. Carl R. Howson of Los Angeles has been offered, and will accept, the medical directorship of La Vina Sanatorium. Doctor Howson, however, will continue in private practice and will maintain his offices in Los Angeles. He has accepted the La Vina directorship on a part-time basis.

Suggested Item on Humane Dog-Pound Law.—A layman, Mr. George E. Coleman of Santa Barbara, who is much interested in the defeat of the proposed Humane Dog-Pound Law—Initiative No. 2—has prepared a statement for possible use in physicians' offices. The text follows:

TO OUR PATIENTS

Your presence in this office denotes that you are suffering and probably have confidence in your physician. If so you will believe him when he tells you that by far the larger part of knowledge used in the diagnosis, prevention, or cure of disease has been gained directly or indirectly by the humane use of animals in medical research. If you are grateful for any benefit received from the medical profession, you will wish this knowledge extended to include those diseases which are now incurable.

Some of the proposed legislation now before the voters in this State, if passed, will be a menace to your health and welfare. You are urged to vote against all antimedical and antiscientific amendments or propositions. Please vote "NO" on Number 2, State Humane Pound Law.

Fair Exhibit to Reveal Mysteries After Birth.—While many of the secrets of birth remain hidden from the eyes of science, the former secrets of what transpire after birth are to be revealed in heroic proportions by the University of California as a part of its display at the Golden Gate International Exposition in 1939. Those microscopic germs of life, the plant and animal cells are to be "blown up" to giant size and literally taken apart, bit by bit, so that all might see how they develop and control life and its many manifestations. The protein molecules that make up the cells in animal bodies, and the cellulose molecules that make up plant life, will be magnified literally millions of times. Each of these molecules will be shown as composed of hundreds of atoms of carbon, oxygen and hydrogen, with a relatively few atoms of other elements included in the protein molecule. Each atom will be shown in its proper position relative to the other atoms of the molecule, while each atom will be colored characteristically to make the molecular structure more evident.

Following out this design, which will be placed on two spectacular models, one transparency will demonstrate the cellular structure of an oak tree, which is typical of any common plant life and another transparency will show the cellular structure of the house cat as an example typical of the animal kingdom.

Five large illustrated panels will show how these molecules and atoms determine various traits of living plants or animals—the fundamental story of heredity. Here the visitor will be introduced to the chromosomes, microscopic bearers of hereditary characteristics. Here also he will learn of the genes, the presumed molecular units of heredity themselves, which are the actual components of the chromosomes. The visitor will be able to see all of this fascinating cycle of life in action.

In recent years science has done much with the study of these chromosomes and particularly in the vinegar fly; have learned exactly where the invisible genes controlling heredity are located on these chromosomes with relation to each other. A large map of the egg cell of a vinegar fly will show its four chromosomes, and will locate various hereditary factors on these chromosomes, illustrating many of them by small colored transparencies.

Healthy Child Is Bright One.—More important to school children than the three R's are the A-B-C's of health education, declares Dr. L. C. Goffin, head of health education for Los Angeles City Schools, who has just been appointed a member of the teaching staff of the University of California Extension Division.

"School health education is now widely recognized to be the most important phase of school health service and the most fruitful branch of general public health education," says Doctor Goffin, who will instruct a course in school health education for the state University Extension Division, beginning September 23.

"A modern school health education program aims to train children in healthy habits of living, endow them with wholesome and discriminating attitudes toward health and disease and give them a sound foundation of health knowledge. It attempts to interpret all phases of life in terms of health. It considers not only the mental and physical health of the individual, but strives to inculcate a sense of civic and social responsibility for community and national health."

Squibb Institute for Medical Research.—The Squibb Institute for Medical Research of New Brunswick, New Jersey, announced the opening of the Institute as for Tuesday, October 11. The program of opening exercises follows:

Welcome. Mr. Carleton H. Palmer, President, E. R. Squibb & Sons.

The Squibb Institute for Medical Research, Dr. John F. Anderson, Vice-President, E. R. Squibb & Sons, Director of Biological Laboratories.

Clinical Investigation, Dr. George R. Minot, Director, Thorndyke Memorial Laboratory Boston City Hospital and Professor of Medicine at Harvard University.

Industrial Laboratories and Clinical Research, Dr. Russell M. Wilder, Professor of Medicine, Mayo Foundation, Rochester, Minnesota.

Biology and Medicine in Coöperation, Professor August Krogh, Professor of Animal Physiology, University of Copenhagen, Denmark.

The Usefulness of Useless Knowledge, Dr. Abraham Flexner, Director, the Institute for Advanced Study, Princeton, New Jersey.

The American Congress on Obstetrics and Gynecology.—The first American Congress devoted to a consideration of medical nursing and other problems associated with human reproduction was held in Cleveland, Ohio, from September 11 to 15, 1938, inclusive. It was designated as the American Congress on Obstetrics and Gynecology. The promotion and sponsorship of the Congress was delegated to the American Committee on Maternal Welfare, Inc. The latter includes the following organizations in its membership:

American Association of Obstetricians, Gynecologists, and Abdominal Surgeons.
American College of Surgeons.
American Gynecological Society.
American Hospital Association.
American Nurses' Association.
American Protestant Hospital Association.
American Medical Association Section on Obstetrics and Gynecology.
American Public Health Association.
Central Association of Obstetricians and Gynecologists.
Chicago Maternity Center.
Maternity Center Association of New York.
National Medical Association.
National League of Nursing.
National Organization for Public Health Nursing.
New England Obstetrical and Gynecological Society.
Pacific Coast Society of Obstetrics and Gynecology.
Southern Medical Association.
United States Bureau of the Census.
United States Children's Bureau.
United States Public Health Service.

The purpose of this Congress is to afford opportunities for discussing and publicizing the problems associated with human reproduction and the health of women and new-born babies. . . .

The Nevada State Medical Association.—The thirty-fifth annual session of the Nevada State Medical Association was held at Reno, Friday, September 23, and Saturday, September 24.

Horace J. Brown, Secretary-Treasurer, reported an excellent program and attendance.

High Authority on Tropical Diseases Visits San Francisco.—Dr. Philip Manson-Bahr, Director of the Clinical Division, London School of Tropical Medicine, and one of the world's foremost authorities on tropical diseases, visited in San Francisco to deliver a series of lectures in this city and Berkeley. The first appearance was before the San Francisco County Medical Society. Later he addressed the students and staff of the University of California Medical School, San Francisco. Thursday evening, September 1, he spoke at Berkeley before the Berkeley chapter of Delta Omega, national public health honor society.

Doctor Manson-Bahr is the protegé and son-in-law of the late Sir Patrick Manson, "Father of Tropical Medicine," and holds a number of responsible posts under the British Government, among them being consultant in tropical medicine in the Royal Air Force and examiner in tropical medicine to the Royal College of Physicians and the Royal College of Surgeons. While here Doctor Manson-Bahr attended the meetings of the National Bacteriological Society in the Hotel Fairmont.

American Public Health Association.—The scientific program of the sixty-seventh annual meeting of the American Public Health Association in Kansas City, Missouri, October 25 to 28, will engage the attention of more than 3,500 of the nation's health authorities, and indicates how closely the organization's Program Committee has been following national trends in public health progress.

There is considerable emphasis on the five major diseases which are being attacked throughout the land with Government funds. The grave problem of maternal and infant mortality receives its share of attention. A special session is devoted to a discussion of "Public Health Aspects of Medical Care" which it is expected will be one of the most significant of the entire conference, with exponents of the National Health Program, spokesmen for organized medicine and representatives of the newly recognized medical consumers, the public, on the platform.

The recruiting and training of public health personnel for the specialized tasks the expansion of health services are creating and for which trained workers are seriously lacking, is a major note in the varied program. The health department as a business organization is a new concept which will be treated by the special session method. Administrative procedures, accounting measures, including cost-accounting, will be considered. Many health departments are now on a parity with million-dollar enterprises and special techniques and formulae for the conduct of the big business of public health are definitely needed.

More than four hundred papers and reports will be presented and discussed in the four days the public health profession is in convention. The delegates are drawn from every state in the Union, from Canada, Cuba and Mexico, and from every branch of public health practice. This makes necessary many individual meetings of the Association's ten sections—Health Officers, Laboratory, Vital Statistics, Public Health Engineering, Industrial Hygiene, Food and Nutrition, Child Hygiene, Public Health Education, Public Health Nursing, and Epidemiology—where rock-bottom topics of interest to specialists alone are talked about and, in addition, sessions involving two or more sections where subjects of broader import cut across the lines of the Section organization. A number of symposia will bring together three and four of these divisions on such subjects as The Phosphatase Test in the Control of Milk Pasteurization; The Use of Biological Products; Water and Sewage; Frozen Desserts; Typhoid Fever; Pertussis; Nutritional Problems Industrial Hygiene.

For further information address The American Public Health Association, 50 West Fiftieth Street, New York, New York.

New York Polyclinic Medical School and Hospital. The New York Polyclinic Medical School and Hospital recently announced the opening of the Urological Department in its new clinic building. The medical profession is cordially invited to inspect this department, which is under the supervision of Drs. Joseph F. McCarthy, Daniel A. Sinclair, David Geiringer, and Howard S. Jeck and their associates.

The American Social Hygiene Association.—Plans for an expanded program of education in syphilis control and social hygiene to reach ultimately 35,000,000 young men and women throughout the nation were announced in New York recently by Dr. William F. Snow, Chairman of the Administrative Committee of the American Social Hygiene Association.

These activities, made possible by an anonymous contribution of $25,000 will attempt, in addition to bringing knowledge of the venereal diseases before youth, to provide biological information and guidance in preparing young men and women for stronger and more enduring marriage and family relations, the announcement stated.

This gift, ear-marked for the youth project, brought the total contributed to the fund being raised by the Association's National Anti-Syphilis Committee to $155,015.

"Of the nation's 35,000,000 individuals between sixteen and thirty years of age, it is estimated that about 5,000,000 are suffering from syphilis or gonorrhea," said Doctor Snow. "No other dangerous communicable disease takes as many victims from this age group as these twin plagues which can be curbed and can be cured."

The program will get under way by October 1 and is expected to reach its peak of intensity for the year around Third National Social Hygiene Day on February 1, 1939.

During the campaign among youth, appeals will be made for continued coöperation of press and radio to supplement the home, church, and school. Leaflets, posters, handbills, and a special "newspaper" are being designed to aid in teaching young persons the facts about syphilis and gonorrhea, how exposures are avoided, and what treatment is necessary when infections occur. These same educational facilities will be utilized to assist them in preparing for lasting and happy marriages.

Science May Have Found Substitute for Morphin.—The development of a new drug which apparently has many of the pain-relieving properties of morphin and codein, but appears to lack some of the addiction factors of the former, is announced by the pharmacy laboratories of the University of California. The new drug and its properties were first announced by Dr. Chauncey D. Leake, Professor of Pharmacology in the University, at the recent meeting of the British Pharmacologic Societly at Oxford University, London, England. The studies of the drug had been made by Dr. Leake, Dr. George Emerson, Associate Professor of Pharmacology at the University of West Virginia, and Benedict Abreu and N. M. Phatak, graduate students in pharmacy in the University of California.

They state that the experimental studies on DNPM are of such interest that the drug deserves careful clinical trial as a possible substitute for morphin.

The new drug is a combination of dinitrophenol, the fever-producing drug, recently used with unfortunate results in the uncontrolled treatment of obesity, and morphin. Strikingly, the new drug which is called Dinitrophenylmorphin, or DNPM, has none of the action of dinitrophenol, but is much more like codein and morphin.

Experiments on animals and normal human subjects indicate that the drug has pain-relieving properties and respiratory effects somewhat similar to morphin and greater than codein. Animal experimentation also suggests that it may have less addiction effect than morphin. But the University workers are careful to point out that any chemical which produces a fecling of wcll-being and relief from pain, may become an addiction drug in a person desiring to escape from an unpleasant health cnvironment. Thesc studies are being published in thc new University of California series on pharmacology now being issued by the University Press.

Forced Population Increase May Invite Famine.—Before any nation or people undertake to increase the population through mass marriages or any other device, it should determine whether the nation's food resources can accommodate such increase, or disaster may result. This was stated in a paper read recently before the Third International Congress of Tropical Medicine and Malaria, meeting in Amsterdam, Holland, by Dr. Alfred C. Reed, Professor of Tropical Medicine in the University of California.

Doctor Reed is president-elect of the American Society of Tropical Medicine, which is meeting in Oklahoma City, Oklahoma, November 14 to 17. At that meeting he will assume the presidency, which he will hold during the year 1939. At present he is visiting a number of hospitals in London. He departed on July 23, his schedule calling for visits to Beirut, Damascus, Jerusalem, Cairo, Rhodes, Athens, Italy, France, Stockholm, Copenhagen, London, and Holland.

Fourth International Congress on Comparative Pathology.—The National Research Council of Rome, Italy, has recently published a pamphlet containing the program and rules of the Fourth International Congress on Comparative Pathology, which, as decided at the 1936 Congress held in Athens, Greece, will be held in Italy May 15 to 20, 1939.

The Congress will comprise three sections: (1) Section on Human Medicine; (2) Section on Veterinary Medicine; (3) Section on Phytopathology.

Papers submitted to any Section must be related to the main topic and be as concise as possible. A summary of about one hundred words should also accompany the papers, which must be in by March 31, 1939, at the very latest. The official languages of the Congress will be English, French, German, Italian, and Spanish. The general reports will be published in the original language, with summaries in the five official languages. They will be distributed to all members before the opening of the Congress.

Application and fee may be sent either through the applicant's National Committee or directly to the Secretariat of the Congress, Consiglio Nazionale delle Ricerche, Piaz zale delle Scienze, Roma, Italy.

Press Clippings.—Some news items from the daily press, on matters related to medical practice, follow:

Medics Face Anti-Trust Action

Society Accused of Boycotting Health Groups

Warning Given

Washington, July 31.—(INS)—The mighty American Medical Association tonight became the announced target of the Administration's anti-monopoly drive, and its officers prospective defendants in federal criminal proceedings.

Accusing the American Medical Association of a country-wide boycott of coöperative health groups, the Justice Department announced it will seek indictment of the responsible physician-officers by a District of Columbia grand jury.

A policy statement signed by the chief of the department's antitrust division, Thurman Arnold, declared the boycott a violation of the Sherman Act. Attorney-General Cummings approved the statement.

Blasts Organization

Arnold's criticism blasted organized medicine generally. He charged the profession with failure to provide "adequate medical care" at a cost within the public's ability to pay.

Instead, he said, the profession, through the American Medical Association, has tried to throttle "an illuminating experiment" in low-cost medical care by ostracizing physicians employed by health groups and denying them hospital facilities.

Policy of the American Medical Association, and its affiliated medical society of the District of Columbia, towards Group Health Associates, Inc., of Washington, was cited by Arnold as a typical boycott on which the criminal proceedings will be based.

Door Left Open

The district society's officers will be named defendants along with the American Medical Association's. The statement mentioned no names.

Arnold made plain the expected indictments will "not necessarily charge a crime of moral turpitude." He said the department considers the offenses charged are no reflection "upon the character of the persons who may be involved."

Aim of the proceedings, he announced, is to "leave the door open to a constructive proposal (from the defendants) at any stage of the litigation."

Arnold thus pointed a way for the American Medical Association, of its own volition, to free its officers of possible penalties by entering into a consent decree abandoning policies which, the statement said, might in any case only prove to be "misdemeanors."

The proceedings, first the government has ever proposed against a national professional society, rest on an untested interpretation of the antitrust laws. Arnold said the department holds the statutes prohibit combinations to restrain competition "in services as well as goods."

The move was regarded as the government's answer to the attitude expressed by American Medical Association officials at the national public health conference here ten days ago, wherein the officials opposed federal aid and intervention in medicine.

The American Medical Association's position, as expressed by Dr. Morris Fishbein, editor of its *Journal,* was that "the physician must remain the master in the house of medicine."

Critical of Government

He and Dr. Irvin Abell of Louisville, American Medical Association president, declared the Administration's proposed $850,000,000-a-year health program, to be financed jointly by the Federal Government and the states, was "unworkable," and that "food, housing and jobs" should be the government's first consideration. They insisted the Association always had coöperated with the federal public health service.

A bid for "coöperation" of the American Medical Association officers in the government's anti-monopoly proceedings was extended by Arnold, who said the department was publishing a "warning of violations as far in advance as possible, in fairness to them, and for their own protection."

* * *

Chicago, July 31.—(INS)—Dr. Morris Fishbein, editor of the *American Medical Association Journal* and official spokesman of the American Medical Association, tonight refused to comment on the announcement from Washington that the Association is to be investigated by a federal grand jury.—Los Angeles *Examiner,* August 1.

* * *

Medics Shun Truce In Antitrust Fight

Washington, Aug. 1.—(INS)—Government officials hinted tonight they may be willing to wind up the antitrust proceedings against the American Medical Association with a consent decree.

The inauguration of criminal action against the Association prompted a flood of broadsides at the Federal Government by officers of the American Medical Association, who indicated they would resist the consent decree course and fight the case through the courts.

Civil Suit

A source close to Thurman Arnold, chief of the antitrust division, said the grand jury investigation probably would not be inaugurated until mid-September. Following this inquiry, the source said, it is possible that the government will seek to drop the criminal proceedings already instituted and open a civil suit which could lead to a consent decree.

The Department of Justice's proposed investigation is designed to help "the poor man get excellent medical service at a price he can afford to pay," United States Attorney-General Homer Cummings asserted in Chicago today.

The Justice Department launched its legal proceedings against the Association to 'prevent artificial impediments by organized groups who desire to escape competition from the various attempts which may be made from time to time to bring down the cost of medical care."

National Basis

The department charged that the American Medical Association expelled physicians for becoming associated with the Group Health Association, Inc., in Washington. While the charges were leveled particularly at the activities in the District of Columbia, the investigation will be on a nation-wide basis, the department revealed.

* * *

Palo Alto, Aug. 1.—(INS)—In the face of disapproval of the American Medical Association, the Palo Alto Medical Society, through Dr. Russell V. A. Lee, committee chairman, today announced plans for launching a hospitalization insurance program which for 85 cents a month will provide liberal coverage of hospital expenses.

The 85 cents a month policy will provide its holder with twenty-eight days of hospitalization for each illness suffered during the year. The benefit paid would be $5 a day, which would meet the hospital charge for a bed in a ward and would also cover x-ray, operating room, laboratory and anesthetic charges.—Los Angeles *Examiner,* August 2.

* * *

Medical Insurance

Individual medical insurance, long regarded as impracticable, will be launched in a big way in New York this month. There are organizations in several cities, including Los Angeles, which are offering such insurance in one form or another, but the New York project is on a scale to indicate that this kind of protection may shortly become as generally available as life or fire insurance.

The New York Coöperative Health Association, operating as a non-profit group, announces that, beginning in two weeks, it will provide policyholders paying premiums of $2 a month complete medical, surgical and maternity care. The premium for man and wife will be $44 a year; for $20 more each, any and all additional members of the family will be provided for.

It is not charity that is being offered. The plan has been figured out on an actuarial basis and is regarded by its sponsors as a sound business proposition. The plan enables individuals and families of low income to provide against the need of calling in the doctor, at the same time guaranteeing that physicians called on cases involving those insured will have their fees promptly paid. The insured do not have to forego needed medical attention for economic reasons, do not have to look to the public for help in sickness and emergency; the doctors they consult do not have to write off noncollectible bills on their books.

The plan is a natural outgrowth of the group hospitalization movement that has swept the country and which in New York has reached its greatest development. Recent reports showed that upward of 600,000 persons in the metropolis and its immediate area have insured themselves against the hazard of being forced to undergo hospital treatment. The two insurance ideas in combination round out a program of complete financial protection intended to enable subscribers literally to take doctor and hospital bills in stride.

If successful, medical insurance should not only discourage the spread of state medicine, at enormous and growing public cost, but should accomplish the avowed purpose of such paternalism by raising the standard of public health. —Editorial, Los Angeles *Times,* September 3.

* * *

Parties Map Hot Fight for Lieutenant-Governor*

Tremendous Power Wielded by Office Recognized and Will Stiffen Candidates' Battles

Growing recognition of the tremendous power wielded by the Lieutenant-Governor will lead this year to unusually vigorous campaigns in behalf of the various party candidates for the office, it was indicated yesterday.

For many years the public has regarded the office of Lieutenant-Governor of California as comparable with that of the Vice-President of the United States in the relatively slight responsibility exercised by the incumbent.

The heavy vote cast in the party fights for Lieutenant-Governor at the August 30 primaries has convinced political leaders that this time-tattered misconception is vanishing.

Prominent Positions

Thus the candidates for Lieutenant-Governor will occupy prominent positions in party spotlights as the general election campaign gets under way.

In actual authority of office, it is pointed out, the Lieutenant-Governor takes second place only to the Governor—and in some respects the Lieutenant-Governor is even more powerful than his chief. A brief tabulation indicates the extent of some of these official powers:

1. The Lieutenant-Governor is in direct succession to the governorship, in the event of a vacancy in the latter office.

Names Committees

2. He names all Senate committees, including special, interim and investigation committees. As the California Legislature functions under the committee system, the make-up of committees has a direct bearing upon the color

* Note.—This item is of interest because the candidate of the Republican Party for Lieutenant-Governor of California is Walter Scott Franklin, M.D., of Santa Barbara, and formerly Professor of Ophthalmology in the Medical School of the University of California.

See also editorial comments, on page 252.

of legislation enacted. Committees may recommend, kill or block bills.

3. In addition to exercising practical control of the Senate through appointment of committees and as presiding officer during Senate sessions, the Lieutenant-Governor is an ex officio member with full voting power of many important boards and commissions.

The sum of all these powers representes an imposing total in two of the three major branches of California's state government: legislative and executive. His diversified authority gives the Lieutenant-Governor substantially more power than is held by the Speaker of the Assembly.

Compact Body

The Senate is a more compact body, furthermore, than the Assembly, and a strong presiding officer can make it a potent factor in dealing with radical and ill-considered legislation.

The Lieutenant-Governor is chairman of the State Advisory Pardon Board. He is a member of the California Toll Bridge Authority and of the Board of Regents of the University of California. He is chairman of the Reapportionment Commission, which reapportions the State every ten years in the event that the Legislature fails to do so, and he appoints persons to prepare arguments for and against initiatives and referendums.

This is only a list of the permanent ex officio offices held by the Lieutenant-Governor. Many similar duties on boards or commissions are delegated to him from time to time.—San Francisco *Examiner,* September 20.

* * *

Attorney-General Rules on Part-Pay Patients in County Hospitals

Attorney-General U. S. Webb ruled last week that county boards of supervisors may allow the admission of patients to county hospitals on a part-pay basis.

"I see no reason," Webb said, "why the board may not adopt some general rule for determining the amounts to be paid by patients who are able to pay a portion of the costs of their hospitalization but who are unable to meet the cost of hospital service in private institutions. It would seem proper that such rules and regulations be established by ordinance, although it may not be necessary that the adoption of rules and regulations be formally made by ordinance unless a county charter requires such action to be taken by ordinance."

The opinion was given to Mrs. Florence L. Turner, State Director of Social Welfare.

Webb also informed Mrs. Turner that patients who pay part of their cost of hospital maintenance could have physicians of their own choosing if the individual boards of supervisors so desired.—Lakeport *Bee,* August 18.

* * *

Court Upholds Health System

City Employees Win Suit Involving Group Medical Service

The San Francisco Municipal Employees' Health Plan today held approval of the State Supreme Court.

The court ordered Controller Harold Boyd and Treasurer Duncan Matheson to make available to the employees' service plan $35,000 impounded pending the court decision.

"There can be no valid objection to the plan," the court ruled. "There can be no question of the power of the city to establish a system of medical care for its employees.

"Proper medical attention . . . should have a beneficial effect on their health and therefore on their efficiency."

In the companion decision, which upheld a lower court ruling banning the Pacific Health Corporation, a western health insurance company, from selling health contracts, the court ruled such sale constituted illegal practice of medicine.

It held the corporation forced members to use its own list of doctors, unless case expenses totaled less than $50.

But the court lauded health service plans with the statement:

"It is possible to bring adequate medical care to vast numbers of persons who can now ill afford it . . . by a carefully regulated statute setting forth terms under which private organizations may offer their services."—San Francisco *News,* September 3.

* * *

Migration of Farm Workers Reduced

Warnings There Are No Jobs Believed Cause of Sharp Drop

Migration of work-seeking farm families into California showed a sharp drop in July and August, compared to the same months of 1937, Jonathan Garst, regional director of the Farm Security Administration, said today.

The number of persons "in search of manual employment" entering the state was only half that of the same month a year ago. In July the figure was 3,987, against 8,035 in 1937, and in August 4,164, compared to 8,156.

Warnings there are more workers now in California than there are farm jobs this year is probably the chief reason for the reduced volume, Mr. Garst said.—San Francisco *News,* September 19.

* * *

Hospitalization Plan Taking Shape

A significant advance in hospitalization insurance will be made within the next week or two when the Palo Alto Hospitalization Group opens offices in this city and inaugurates a campaign, in coöperation with the Palo Alto Medical Society, to enroll residents of the community in an insurance program which for 85 cents a month will provide liberal coverage of all hospital expenses.

The 85 cents a month policy will provide its holder with twenty-eight days of hospitalization for each illness suffered during the year. No person would be insured against a disease from which he was suffering at the time he applied for his policy, but would be covered against other maladies that might develop. The benefit paid would be $5 a day, which would meet the hospital charge for a bed in a ward or would be applied toward a room charge and would also cover x-ray, operating room, laboratory, and anesthetic charges.

Members of the medical society committee which has been working on the plan for more than a year are Dr. Granville Wood, Dr. Jerome B. Thomas, Dr. Edward Liston, Dr. Charles Shepard, and Dr. Russel Lee.—Menlo Park *Recorder,* August 26.

* * *

Hospital Insurance Group Joins District Association

Consolidation of the Associated Hospitals Service Fund, Santa Clara County hospitalization insurance organization, with the Insurance Association of Improved Hospitals, San Francisco Bay region group hospitalization institution, was announced yesterday.

Voted last week by directors of the local group, which has its headquarters at San Jose Hospital, the move has been endorsed by the county medical association, according to J. Philo Nelson, general manager of the Bay region organization.

Letters apprising the local hospital group's 1,200 members were put in the mail yesterday, and the move becomes effective at once.

Fostered by the American Hospital Association, the Bay region association claims 20,000 members, with twenty-five participating hospitals in San Francisco, San Mateo and Alameda counties. Added to this list will be Santa Clara County's several private hospitals affiliated with the county association.

All local members will be included in the consolidated organization, which will retain its insurance association title.

New members must come in under the regulations of the association, which differs from the local organization in that only group applications are received.

Group applications will be considered, Nelson said, from clubs, societies, lodges, luncheon clubs, employees of one firm. Husbands, wives, and children of members also are eligible for membership at special family rates.

Nonprofit Service

Similar in general to the local group's set-up, the association's prepaid hospitalization plan is also nonprofit. Its officers and directors serve without pay. It is qualified as an insurance company under California laws.

It offers twenty-one days of hospitalization for each illness or accident during the policy year, or fourteen days' service in any lawfully operated hospital in the United States or Canada while away from home.

It provides board and room—ward accommodations, or a private room—on payment of the difference in rate.

General nursing care, operating room service, including anesthetic, x-ray, laboratory service, materials, dressings, physiotherapy treatments, ordinary drugs and medicines are covered in the plan.

Rest cures, childbirth, venereal infection, and conditions covered by workmen's compensation act are excluded.

Family Rates

Fees are $1 registration for new members, whether single applicants or families. Monthly rates are 90 cents a month for the employed person making application, 80 cents for his or her husband or wife, 40 cents for each dependent child from 30 days to 19 years of age, and 90 cents for each dependent child over 19.

Payment is to be made through a group collection plan, except in the case of individual members of the present Santa Clara County group who will be included on their old standing.

Persons leaving the group under which they join may continue payment on an annual or semiannual basis. Employed members who pass the age of 65 may continue with-

out change if they remain employed, but dependents and those unemployed will be dropped at 66 years of age.—San Jose *Mercury-Herald,* September 2.

* * *

Board Adopts Final Budget

Total of $64,927,349, Gain of $9,769,436 Over Previous Year

Los Angeles County's final budget for the fiscal year of 1938-1939, carrying total appropriations amounting to $64,927,349, which is $9,769,436 more than last year, was unanimously adopted yesterday by the Board of Supervisors.

Of the $64,927,349 set up, only $35,770,100 will have to be raised by taxation. This, however, is an increase of $3,289,184 over the figure for 1937-1938, which will necessitate a general basic county tax rate of $1.51 on each $100 of assessed valuation, 10 cents over last year's rate.

The new rate, along with a road tax and one for library purposes in certain districts of the county, will be adopted by the supervisors.

Charity Load

A study of the new budget discloses that 74 cents of the $1.51 new tax rate will be used for raising funds to carry the county's staggering charity load, which this year will cost $39,714,036, or $6,892,313 more than last. The heaviest item is for aid to the aged, amounting to $20,212,050, an increase of $4,362,050 over last year. . . .—Los Angeles *Times,* August 30.

* * *

Low Cost Medical Care Recommended

Necessity Revealed for Small Incomes

Ogden (Utah), Sept. 1.—(AP)—The Utah State Medical Association officially recognized today the necessity of supplying medical care to "low income and indigent groups."

Consideration Urged

The house of delegates, policy-forming body for the State Association, recommended at the Association's annual convention that the state president appoint a committee to "give specific consideration to some form of supplying medical care to low-income and indigent groups."

Association officials pointed out that the proposal is "socialized medicine" only in the sense that low-cost medical service would be provided those with little or no means. It does not contemplate "free" general medical service, they said.

Found Difficult

"Indigent people of Utah are receiving medical care at present at the courtesy of the doctors, but the low-income groups are finding it very difficult, in some cases, to obtain proper care," said W. H. Tibbals of Salt Lake City, executive secretary of the Association. "It is hoped that a plan whereby persons with low incomes can pay for their own medical care may be worked out."—San Francisco *Examiner,* September 2.

* * *

Rabies Diagnosis for Deer Confirmed by Doctor Proescher

Rabies is spreading to deer in Santa Clara County, a report made by Dr. Frederick Proescher, pathologist at the County Hospital in San Jose, to Dr. C. M. Burchfiel, county health officer, disclosed today.

Doctor Proescher, after examining the brain and carcass of a deer found dying on the J. J. Nunes ranch on Toyon Avenue, east of here, Saturday morning, said the large buck had died of rabies.

Sheriff's deputies and game wardens said probably the deer was pursued and bitten by a mad dog, wandering from the hills to the Nunes ranch. The deer was alive when found by Nunes, and was foaming at the mouth and had an infected leg. The animal died shortly after being found.—San Jose *News,* August 22.

* * *

Rabies Menace Widespread

Los Angeles County also has a rabies condition—also a state quarantine on dogs. Which irks the southern county. The county health officer, however, who realizes the menace dogs running loose upon the streets are to the public, asserts the quarantine will remain in effect unless—or when—"the county and city of Los Angeles and the various other smaller cities pass a regular ordinance requiring that dogs be kept on leashes on the streets and other public places."

In Los Angeles County 4,564 persons have been bitten by dogs—372 of whom by dogs definitely established to have been suffering from rabies, and 360 rabid animals have been picked up in the county area.

Rabies will never be stamped out in Los Angeles, San Jose or any other community until the quarantine is strictly obeyed. It is strange that dog owners, whose own animals are in danger of being bitten by rabid dogs, should not realize they, themselves, may be victims of their own pets. For the common safety of the community, the quarantine must be rigidly enforced until all danger of rabies is ended.—San Jose *Mercury-Herald,* September 1.

* * *

Doctors and Bets

Any Pajaro Valley doctor with "sporting blood" should pause and ponder on the experience of a King City physician.

According to a story in the *Rustler-Herald,* King City paper, Dr. Charles T. Bullard was certain Mrs. John Dukellis' third child was to be a girl. Mr. Dukellis, hotel operator, said it was going to be a boy. So, they entered into a little wager. If the child was a girl, Doctor Bullard was to get double his usual fee. If it was a boy, there would be no fee.

Eustratis Nicholas Dukellis arrived—a "free man." The doctor took his leave—sans fee—and Mr. Dukellis beamed over the cradle.

There is a moral some place in this little story, but we feel that Doctor Bullard should be the one to point it out.—Editorial, Watsonville *Register-Pajaronian,* August 20.

* * *

Butte Asks Help to Care for Migrants in Camp

Federal and state relief administrations will be asked to assist Butte County in providing hospitalization and medical aid for more than 700 people in the federal migrant camp at Gridley. Supervisors were told this week that Butte County cannot continue to stand the cost.—Orland *Unit,* August 18.

* * *

Legal Opinion Needed, Would Get PWA Help

A 15-cent tax, with which to construct a new county hospital, will be placed in the Glenn County budget if the Attorney-General rules that such procedure is legal at this time.

This decision was taken unanimously by the supervisors late Saturday on a motion made by Supervisor Picknell, and seconded by Supervisor Murch.

The hospital would cost approximately $55,000, with the county furnishing roughly 55 per cent, or $29,000, through the tax, and the PWA furnishing the remaining 45 per cent.

Would Cost $55,000

The tax would increase the county's inside rate from $1 as of last year to $1.29, while the outside rate, which was $1.20 last year, would be raised to $1.54.

The district attorney was instructed to consult with the State Attorney-General's office and report to the supervisors at their meeting Wednesday.—Willows *Journal,* August 22.

* * *

Glenn County Doctor Faces Ouster Move

Young Mother's Death Stirs Criticism; Vote Delayed by Board

Willows, Aug. 24.— . . . Regarding construction of a new county hospital, the board decided to postpone the project until next year, after a ruling was received from Attorney-General U. S. Webb, holding that a proposed 15-cent special tax would be invalid.

Webb said the original budget did not provide for the tax and that it could not be added now. Supervisors said they did not believe voters would approve a bond issue for the $55,000 project.

It had been planned to obtain 45 per cent of the funds needed from a PWA grant and to raise the balance through the special tax.—Sacramento *Union,* August 25.

* * *

This and That

Glenn County will have to get along with its present county hospital building until next year.

The supervisors, having found that they could not insert a 15-cent rate into the budget this late, have dropped the plan. Inasmuch as the PWA has set October 1 as the deadline for making grants of this character, and since it is practically impossible to take care of details for a bond election now, the matter will probably rest until budget time next summer.

A bond election must be called at least thirty days before it is held.

Into the calling of such an election must go much careful work. Usually no political subdivision calls an election before it has been assured the bonds can be sold, and bond companies take plenty of time for their own investigations.

It is highly doubtful that the necessary two-thirds vote could be obtained for the bonds, especially in view of the muddle over county hospital laws.

Most Glenn County residents favor a new hospital because they anticipate that they, or their families, will get some direct use from it.

In some counties, notably Colusa, such is the case.

But most legal authorities hold that the law is not being followed strictly in Colusa, since a public institution cannot be put into competition with private enterprise.

Some attorneys have said that, inasmuch as there is no hospital in Glenn County, the hospital might be opened to the public. But there is serious doubt about this, too.

In seeking legislation to modify the situation, lawmakers would certainly meet opposition from the medical profession, which opposes use of county hospitals for public use, even though few private hospitals can be made to pay.

The supervisors may find the situation changed entirely when they meet next summer.

Congress may solve a large part of the program at this winter's session, since socialized medicine is scheduled on the "must" program of the New Deal. In such an event, the picture, in so far as Glenn County is concerned, will be a much different one.—Willows *Journal*, August 24.

* * *

Reports Made on Progress to Two Clubs

"Science Has Discovered Ways to Overcome Injuries," Women Told

More emphasis on prevention!

This was the underlying theme of two gatherings held yesterday, both called in the interest of work for crippled children. Better public understanding of work being accomplished was considered at the annual meeting in the Palace Hotel of the California Society for Crippled Children.

Progress which has been made was discussed for the Sunbeam Society for Handicapped Children at its first fall session in the P. G. & E. Building, with Mrs. D. L. Breslauer presiding. Mrs. Gertrude Folendorf, administrator of the Shrine Hospitals in the United States, said in her talk to this group:

"There is little excuse now for injuries of children at birth, which result in spastic deformities. Modern science and research has discovered ways of overcoming such injuries. Prospective mothers may be advised of ways in which birth can be made simple."

Action Urged

In this connection, Mrs. Folendorf urged defeat of the so-called Humane Pound Act on the November ballot. She said:

"This act would stop experimentation. Better experiment on animals than on a child. Many diseases have been eliminated through experiments with animals. And in these laboratories the animals do not suffer. They are cared for as carefully and kindly as are patients in hospitals."

Among the greater modern advancements in work with crippled children, Mrs. Folendorf said, is the fact that employers are realizing that handicapped persons, if well educated and trained, may fill places in society as capably as others. . . .

Plea Made

California's migrant problem was brought more closely home to urban dwellers when Dr. D. C. Williams of Madera said:

"Our problem becomes the city's problem, later on. Right now our problem is to deal with the crippled children of migrants, and there are many of them. The State of California should take action on their needs. A state that is paying 44 cents to relieve able-bodied men is not paying one cent for crippled children. The state should do the same thing for these handicapped ones that it is doing for tuberculous children. If nothing is done these handicapped children will grow up to be dependent citizens."

Mrs. T. E. Shucking, president of the San Francisco Guild for Crippled Children, won applause when she reported on the activities of this local group, which has continued its service during the summer months."—San Francisco *News*, August 26.

* * *

Too Many Children Are Born to Insane, Is Claim

Editor of *The Bee*—Sir: In an eastern city is an institution for the care of the insane with a capacity for 1,000 inmates. In 1934, 1,000 were in the institution, and 1,000 on the waiting list outside. During 1934 there were 650 offsprings born to the thousand on the outside. A check-up on the same institution for 1936 disclosed that there were 1,140 in the institution, with 1,200 on the waiting list, and 1,300 eligibles who had not registered. I have no report on the number of offspring born to those on the outside in 1936, nor have I any report for the year 1935.

If 1935 were an average of 1934 and 1936, then the number in the institution in 1935 would have been 1,070, and the eligibles on the outside would have numbered 1,750. If the birth rate among those outside was the same for 1935 and 1936 as for 1934, then there would have been born to that group in 1935 and 1936, 1,137 offsprings. This, plus the 650 for 1934, would give 1,787 offsprings born to insane people in three years.

Recent scientific reports state that over 41 per cent of all insanity is known to be hereditary. If this be correct, then 736 of the 1,787 offsprings will some day be insane. The average cost of care for the insane approximates $400 a year. Thus, the 736 insane born of insane parents in one community in three years costs the taxpayers nearly $30,000 a year, and this amount is increasing yearly. Had these insane people been sterilized, the taxpayer would have been relieved of a tremendous burden, society relieved of a great social problem, and the individuals themselves benefited most of all.

Is it not time that the taxpayers, as well as society at large, awakened to their responsibility and opportunity?—Dr. Eugene H. Pitts, Sacramento, August 26, 1938 (from Letter Column of *The Sacramento Bee*, August 27).

* * *

Group Medicine

Cleveland, Sept. 9.—The economics committee of the Academy of Medicine today proposed hospital insurance for the general public at $9 yearly. The committee will work out details, then put it to a vote of the academy's membership.

The medical insurance would cost the citizen 75 cents a month, or $9 a year. It would pay $6 daily toward his doctor bills for every day up to twenty-one days spent in a hospital during the year, or a maximum payment of $126.—San Francisco *News*, September 9.

* * *

Webb Rules Out Doctors' Contract

County boards of supervisors have no legal right to contract with private physicians to care for the indigent sick at fixed fees, Attorney-General U. S. Webb ruled yesterday.

Webb agreed with District Attorney Earl Redwine of Riverside County that under the state political code such care for the sick must be administered in hospitals and institutions.—San Francisco *Chronicle*, September 11.

* * *

Creation of Los Angeles County Institutions Commission to Be Urged

Creation of another county commission, a seven-member board to have supervision over General Hospital, Olive View Sanatorium, Rancho Los Amigos and all medical treatment given at public expense, will be urged upon the board of supervisors at their meeting next week.

Such an "institution commission" is being sponsored by the Los Angeles County Medical Association. In a letter to the board the association declared that a similar commission has functioned in Oakland since 1917 and has proved satisfactory.

The members of the commission, to be named for staggered terms of seven years each, would receive no salaries but would be given an honorarium of $20 for each meeting attended, with meetings limited to three in any month.

Adoption of the plan would require a charter amendment to be adopted by vote of the people and it then would remain in existence perpetually, unless the creating amendment were repealed by vote of the people.

"No public health problem in California has closer connections with medical practice than publicly supported hospitals," the association's letter, signed by Dr. George Kress, president, stated. "These institutions can be potent factors in determining what the future shall bring to scientific and organic medicine.

"We are asking the proper medical society committee in each county of the state to consider this problem seriously at once, despite the fact that it is the middle of vacation months."—Clearwater *Journal*, September 1.

* * *

Doctors Seek Another Plan

Socialized Medicine Is Up Before Society Council

Alternatives to a political program of socialized medicine were among the subjects under consideration today at a regular meeting of the Council of the Medical Society of the State of New York, 2 East 103rd Street. While the meeting was not open to the public, it was known that plans were in formulation for State representation for the forthcoming conference of the House of Delegates of the American Medical Association in Chicago when proposals made by the National Health Conference in Washington in July will come up for discussion by representatives of 108,000 doctors.

The case against compulsory health insurance has been published in pamphlet form by the Medical Society of the

State of New York with arguments marshaled by Dr. Frederick E. Sondern, a past president of the society.

In a foreword, the pamphlet states: "Subtle and persuasive forces are at work influencing the public mind in favor of State medicine, and its substitutes, socialized medicine and compulsory sickness insurance."

Doctor Sondern writes: "Many physicians feel poignantly that an injustice is done us when, by implication and direct statement, the public is asked to believe that the doctors of the nation as merchants of medicine are obstructing, for purely selfish reasons, a movement to provide adequate medical care for the masses. . . .

"With the feeling that it is neither necessary nor desirable to distrust the competent man, nor to impugn his motives, this discussion is submitted for the thoughtful consideration of the public."

He says in part:

Sees Deterioration of Service

"Medical men, with few exceptions, are opposed to the compulsory sickness insurance scheme. They believe it will not, in fact, bring adequate medical care to those whom it serves, but an inferior quality of care to that which is at the disposal of the wage-earning group today. Medical men believe the plan will result in a deterioration of the physician's standards of excellence, that it will foist upon society a bureaucratic system politically controlled, which will feed and fatten at the expense of the workman and interfere, to the great damage of the patient, with the relationship between him and his physician. These considerations strike at the very vitals of the profession. We are moved decply by consequences which we envision in this country if compulsory sickness insurance becomes effective, and we find when we travel in Europe where this type of practice has been established, evils which could not be avoided, and perhaps would be aggravated, here."

As It Is Abroad

Doctor Sondern avers that, in England, "the Insured patient has little regard for his panel doctor and in the event of a serious condition, in his own words he secures 'a real doctor' even if it takes the last shilling he has."

He states that 50 per cent of the patients who go to free clinics in England do so rather than consult their panel doctor because the panel doctor is so rushed by the long line-up of cases at his door that he has no time to make a careful diagnosis.

He quotes Gustav Hartz of Berlin as saying relative to the state insurance system there: "The insured workman becomes a second-class patient. The mass demand compels a limitation in the use of medicines. Doctors must not prescribe what they consider good for the patient; they are only allowed to give remedies entered in a book of medical regulations for insurance purposes. Medical science has become a cheap article, and doctors have given up conscientious treatment."

To the argument that socialized medicine aims to help those who cannot afford to pay for medical care, Doctor Sondern replies: "Throughout the depression, and even before, we have offered our services unstintingly in the alleviation of the miseries of those who are unable to pay for medical care as well as to those able to pay only part of its cost. This is a traditional, historic obligation. So well has this emergency been met under the prevailing system of practice that it can be said that there is little lack of medical care if the person needing it, or his family, will seek it. . . . Physicians do not eject patients from their offices because they do not have cash in their hands, nor do clinics close their doors to them. If the patient cannot pay the doctor in full he pays less; if he has nothing he is treated without cost or is referred to institutions which care for indigent patients."—New York *Sun*, September 8.

* * *

Testimonial for Republican Nominee to Post of Lieutenant-Governor

Dr. W. S. Franklin Luncheon in San Francisco

Many reservations have been received for the testimonial luncheon to be tendered Dr. Walter Scott Franklin, Republican nominee for Lieutenant-Governor, at the Palace Hotel on Tuesday, October 4. A crowd that will tax the capacity of the Rose Bowl was predicted by Dr. Howard Morrow, chairman of the committee on arrangements.

The luncheon will be in the nature of a "welcome home" for Doctor Franklin, who is a native San Franciscan, and practiced his profession here for twenty-five years.

South of Market Boy

Doctor Franklin was born at Seventh and Minna streets, is a member of the Native Sons of the Golden West and of the South of Market Boys. He is a graduate of Stanford Medical School, and served his interneship at the French Hospital. For ten years he was head of the Department of Eye Diseases at the University of California Medical School. . . . —San Francisco *Examiner*, October 3.

Health Plan Abandoned

Resettlement Project for Coöperative Care Found Impractical

Gone with the wind is the Federal Resettlement Administration's experiment with coöperative health groups in this county, it was learned yesterday.

After two starts with two different groups, it was decided not to start others, and the two eventually passed into oblivion by the dissolution route.

Formed in 1936

With something of a flourish, the resettlement division of the Agricultural Adjustment Administration started in San Gabriel Valley late in 1936 to organize a health association.

Debtors to the Administration were taken into the San Gabriel Valley Health Association under leadership of a "federal coöperative specialist" and later a second group was formed with the name San Fernando Valley Health Association, with others in the offing.

Medical Care Given

The plan provided that persons who had borrowed money from the AAA could pay $2 a month and upward for group medical care, the monthly payments to be made by the Government and later to be repaid by the beneficiary to the Government along with his original loan.

A private concern providing the medical aid, it was explained at the federal office yesterday, found that the business was not sufficiently remunerative, no further associations were formed and those that had been formed were dissolved.—Los Angeles *Times*, September 21.

* * *

Insurance for Seventeen Thousand October 1

Group insurance for more than 17,000 municipal employees and their registered dependents will go into effect October 1, officials of the Health Service Board announced today.

Today will be the last day for registration of dependents.

A panel of doctors, numbering one thousand names, and a list of acceptable hospitals will be supplied each insured person. The employee pays about $2.50 a month and an additional dollar for each dependent insured under the plan.—San Francisco *Call-Bulletin*, September 21.

* * *

Seek to Cut Los Angeles County Expenses

An economy wave, with provisions for savings estimated at more than $100,000 a year, swept over the Board of Supervisors today.

Supervisor John Anson Ford announced that later in the day he would introduce a resolution asking that the county health service be offered to the city under contract.

Under the plan, the City Health Department would be abolished—City Health Officer George Parrish losing his job—and the city would use the county's health services, Ford said.

Others Use Plan

Many cities in the county already are operating under such a setup, he said.

Chairman Roger Jessup commented:

"From studies I have read, the indications are that city and county taxpayers could save $100,000 a year by such a procedure, which would eliminate duplication of services by the two health departments." . . .—Los Angeles *Herald-Express*, September 27.

* * *

Kern's Hospital Policy Topic of Planned Session

Doctors and Supervisors Will Hold Parley to Discuss Rules

To discuss county hospital policy with respect to patients having choice of personal physicians at the Kern General, the five members of the Board of Supervisors will meet with five members of the Kern County Medical Society in the near future. The supervisors today voted to have Chairman Roy Woollomes arrange this meeting after the board had received a letter from the medical association's board of directors signed by Dr. C. S. Compton, secretary.

This letter read in part:

"The medical profession feels that any patient who is not classed entirely as indigent should have free choice of physician, and this belief is upheld by a recent opinion of the Attorney-General of California. We call to your attention the situation in Kern County at the present time in so far as care of the patient who can partly pay his own way is concerned.

"It is now and always has been the concern of this group to properly care for all classes of people. It has been ad-

mittedly difficult at times to care for those patients who can pay part but not all of their care.

"The medical profession believes that a great many of these people, at least, can be cared for in the county hospital, and it is felt that the time has arrived when the supervisors and the medical profession can get together on a feasible plan."

The board will ask five members of the association to meet with the five supervisors at a time and place to be announced by the chairman. . . .—Bakersfield *Californian,* September 19.

LETTERS

Subject: A physician nominated for Lieutenant-Governor of California.

To the Editor:—In times past I have noted that in its columns your JOURNAL called attention to the far greater interest which medical men of other countries than America have displayed in civic offices and duty, and you expressed the thought that one of the reasons for the passage of some of the obnoxious laws having a bearing on public health was the absence of medical men in legislative bodies. You expressed the hope that members of the medical profession might well take a more direct interest in such matters, and even permit their names to be considered for legislative positions.

It is a pleasure, therefore, to be able to call to the attention of the California medical profession that the successful candidate for the very important office of Lieutenant-Governor of California is Walter Scott Franklin, M.D., for some years professor of ophthalmology in the Medical School of the University of California, now retired from practice and a rancher in Santa Barbara County.

Doctor Franklin is well known to members of the medical profession throughout the state and, in the writer's opinion, would perform well the duties of Lieutenant-Governor, with credit to himself and to the profession of which he is a member. I hope physicians everywhere will mention his name to patients and friends.

Respectfully submitted,
HENRY S. ROGERS.

Subject: Correspondence. I. A letter to Mrs. Roosevelt. II. A reply through Assistant Surgeon-General Waller. III. A reference to the California Medical Association. IV. A letter from the C. M. A. Association Secretary.

I

(COPY)

Oroville, California,
August 20, 1938.

Dear Mrs. Roosevelt:

Please forgive me for taking this liberty of writing you, but being my aim is to help a dear soul, won't you please read through this letter.

I have a sister at Los Angeles who is sick and destitute. She came there three months ago from Arizona to take treatments from a doctor whom she has a lot of faith in. She has taken a few treatments and has improved a great deal, but being as she has run out of money, is unable to keep on with these treatments. Her husband is with her, and been trying his best to get employment but has been unable to get any, and being their non-residents he's not eligible for PWA work, so they really are in very bad circumstances.

I would love to help her if I could, but am unable to do so. We've had sickness and doctor bills lately, and my husband is unemployed.

I wonder if you wouldn't please help her. I know you are a kind person, and no one could possibly appreciate it more than her. She's a Christian, so I know she would take it as an answer to prayers and a gift from God.

My sister is a dear sweet person, so kind and patient. She has been sick for several years. Her trouble is stomach trouble, and rheumatism, but this doctor says he can cure her. He is very reasonable in price. She's thirty-eight year's old, so it would be too bad if she couldn't get over this ailment and would have to go through the rest of her days in this condition. She has a darling boy of five, who is so good for his age and loves his mother so much. His name is Arnold.

I think we have a very good President and I do hope he will run again, as I feel certain he will be elected. Conditions sure would be worse if we didn't have such a good loyal person in office.

Dear Mrs. Roosevelt, won't you please help my sister. She don't know anything about me writing you, so it would sure be a surprise to her if you would be so kind as to send her something and I never could thank you enough. I will give you her address: Mrs. ———, ——— Street, Los Angeles, California.

Love and best wishes to you, I am

Mrs. ————,
————, California.

II

(COPY)

September 7, 1938.

Mrs. ————
————, California
Dear ————:

Acknowledgment is made of your recent letter, addressed to Mrs. Roosevelt, stating that your sister is in need of medical treatment, but that she is without the financial means to pay for it.

Although there has been considerable publicity on the subject of medical care in press reports on the National Health Conference, no legislation has as yet been passed which would permit the Federal Government to extend free medical or hospital care to the public at large. This case, therefore, is one for the attention of state or local authorities or agencies. Accordingly, a copy of your letter is being referred to your State Health Officer, Dr. Walter M. Dickie, at San Francisco, California, and to the medical society of your state. It is hoped that one or the other of these agencies will be able to furnish the necessary aid or treatment.

By direction of the Surgeon-General.

Respectfully,
C. E. WALLER,
Assistant Surgeon-General
Domestic Quarantine Division.

III

(COPY)

TREASURY DEPARTMENT
PUBLIC HEALTH SERVICE
WASHINGTON

September 6, 1938.

Letter from: Mrs. ———, ———, California.
Dated: August 25, 1938.
Subject: Desires help for her sister, Mrs. ———, Los Angeles, California. Sister is ill and destitute.
Respectfully referred to: California Medical Association, 450 Sutter Street, San Francisco, California.
By direction of the Surgeon-General.
cc Dr. W. M. Dickie
State Health Officer

C. E. WALLER,
Assistant Surgeon-General
Domestic Quarantine Division.

IV

(COPY)

CALIFORNIA MEDICAL ASSOCIATION

San Francisco, September 13, 1938.

Mrs. ————
————, California
My dear Mrs. ————:

Copy of your letter of August 20th to President Roosevelt's wife and copy of reply of September 7 by C. E.

Waller, Assistant Surgeon-General, has been received by the California Medical Association.

I note the address of your sister, Mrs. ——— is ——— Street, Los Angeles, California, and that you write that a physician who states he can cure her has told her she has stomach trouble and rheumatism.

I note that Assistant Surgeon-General Waller, in his letter of September 7th states: "Accordingly a copy of your letter is being referred to your State Health Officer, Dr. Walter M. Dickie, of California, and to the Medical Society of your State. It is hoped that one of these services may be able to furnish the necessary aid or treatment."

For your information, I may add that the California Medical Association has no facilities for furnishing surgical or medical care to citizens of California. Also that the State Board of Public Health is probably in the same position, because its function is to prevent rather than to treat disease.

If your sister and her husband are in destitute circumstances it would be proper for one or the other to apply to the Bureau of Outdoor Relief of the County of Los Angeles or to the Los Angeles Community Chest organization. I am sending a copy of this letter to the Los Angeles County Medical Association, 1925 Wilshire Boulevard, for the information of that organization.

You state that you have been in Los Angeles only three months. The California law makes it impossible to admit patients to its county hospitals unless there has been at least one or two years' prior residence. Of course, emergency aid is given for acute illness or injuries.

Yours very truly,

GEORGE H. KRESS, M.D.,
Secretary.

Subject: Tenth International Congress of Military Medicine and Pharmacy, Washington.

To the Editor:—Enclosed herewith is a copy of the tentative program of the Tenth International Congress of Military Medicine and Pharmacy, including a suggested notice. This notice was published in the International Bulletin of the Congress, which is printed at Liège, Belgium. The Organizing Committee of the Tenth Congress would very much appreciate a notice in your journal relative to the next meeting of the Congress in Washington, D. C., May 7 to 15, 1939. . . .

Registration is without fee, and blanks will be sent to all persons who are interested on application to the Secretary General. Thanking you for your coöperation in this matter, believe me, my dear sir,

Very sincerely yours,

HAROLD W. JONES,
Colonel, Medical Corps, U. S. A.

P. S.—Address all communications to the Secretary General, Army Medical Library, Seventh Street and Independence Avenue, Southwest, Washington, D. C.

* * *

The forthcoming International Congress (tenth) of Military Medicine and Pharmacy will be held in Washington May 7 to 15, 1939. Invitations to participate have been sent to every country by the President of the United States, and already acceptances have been received from several countries. A full scientific and social program has been arranged and will shortly be mailed to all the countries to which invitations were sent. A large registration is hoped for and every effort will be made by the committee in charge to make the Congress an attractive one to those participating. General Charles R. Reynolds, the Surgeon-General of the United States Army, will be the president of the Congress. Registration is open to all officers of the medical services of the Army, Navy, Air, and Colonial services, National Guard, territorial forces and public health service, whether active or reserve.

Colonel Harold W. Jones of the Army Medical Corps is Secretary General. The secretarial office is at the Army Medical Library, Washington, D. C.

SCIENTIFIC PROGRAM

First Question.—The Organization and Function of the Medical Services in Colonial Expeditions.

Reporters: Italy and the United States of America.

Second Question.—Probable Casualties in War and Methods of Calculation.

Reporters: Germany and the United States of America.

Third Question.—Practical Procedures for Anesthesia and Analgesia in War Surgery.

Reporters: Brazil and the United States of America.

Fourth Question.—Organization and Function of the Military Chemico-Pharmaceutical Service.

Reporters: Argentina and Czechoslovakia.

Fifth Question.—Emergency Treatment and Primary Apparatus for Fractures of the Jaws in War.

Reporters: England and the United States of America.

Sixth Question.—Technical Specialization of Administrative Officers in the Medical Service.

Reporters: Mexico and the United States of America.

Seventh Question.—Oxygen Therapy and Its Practical Use with Troops on Active Service.

Reporters: Belgium and the United States of America.

Subject: Postgraduate Course of the San Joaquin County Medical Society.

(COPY)

SAN JOAQUIN COUNTY MEDICAL SOCIETY
Committee on Postgraduate Activities
C. A. Broaddus, Chairman
A. L. Van Meter
Samuel Hanson
C. V. Thompson
W. H. L. Collis
J. O. Eccleston

Stockton, California,
September 1, 1938.

To the Editor:—We enclose herewith a prospectus for the Fourth Annual Graduate Study Series to be held in Stockton this fall under the auspices of the San Joaquin County Medical Society. We believe you will find this bigger and better than ever before.

Through the courtesy of Dr. William Friedberger of the San Joaquin General Hospital we are able to offer four clinics during the course—two surgical and two medical. This is a mighty fine addition to our usual program, and we are very grateful to the Doctor for his fine coöperation.

In order to meet the expenses of the course the usual fee of $5 will be charged, which entitles the registrants to all the privileges of the lectures and clinics, both in Stockton and at the San Joaquin General Hospital in French Camp.

Very truly yours,

(Signed): THE COMMITTEE ON POSTGRADUATE ACTIVITIES.

* * *

PROGRAM OF THE FOURTH ANNUAL GRADUATE SERIES
SAN JOAQUIN COUNTY MEDICAL SOCIETY
STOCKTON, CALIFORNIA

SEPTEMBER, OCTOBER, AND NOVEMBER, 1938

Thursday, September 22, 8:00 p. m.
Clubrooms, Medico-Dental Building
Dr. A. L. Van Meter, Chairman

Electrocardiography: Its Interpretation and Its Application in Relation to Treatment, Dr. William Dock and Associate.

Electrocardiography will be discussed by Doctor Dock and his associate. Liberal time will be allowed for answering questions, and an hour will be devoted to a review of the newer treatment of the common types of cardiac disease.

* * *

Thursday, September 29, 8:00 p. m.
Clubrooms, Medico-Dental Building
Dr. A. L. Van Meter, Chairman

Metabolic Disturbances as Seen in Hyperthyroidism, Myxedema, Calcium Disturbance, Addison's Disease, Cushing's Disease, Dr. Hans Lisser.

No comment is necessary when Doctor Lisser is the speaker. Those of you who have heard him previously

will appreciate the interesting evening in store for you. Those of you who are to hear him for the first time will be delighted with his presentation.

* * *

Saturday, October 1

San Joaquin General Hospital, French Camp

Dr. Samuel Hanson, Chairman

Surgical Clinic.

Proctology.

Consisting of a diagnostic and operative clinic on rectal diseases.

Dr. James W. Morgan, University of California.

One major and several minor rectal operations will be demonstrated, dependent upon the material at hand. Free discussion of diagnosis and treatment during operations as well in a special period devoted to that purpose afterward. Hemorrhoids and anal fistula will be given special attention.

* * *

Saturday, October 8,

San Joaquin General Hospital, French Camp

Dr. Samuel Hanson, Chairman

Surgical Clinic.

Thoracoplastic Operations, Dr. Paul K. Samson and Dr. Elliot P. Smart.

Special attention will be given to the diagnostic points indicating the need for operative measures in tubercular chest conditions.

* * *

Thursday, October 20, 8:00 p. m.

San Joaquin General Hospital, French Camp

Dr. J. W. Barnes, Chairman

Medical Clinic.

A Clinical Presentation of Medical Cases, Dr. W. J. Kerr, San Francisco.

The type of cases will be governed by the material available in the hospital at the time.

* * *

Thursday, November 17, 8:00 p. m.

San Joaquin General Hospital, French Camp

Dr. J. W. Barnes, Chairman

Medical Clinic.

A Clinical Presentation of Medical Cases.

Visiting speaker from out of the State (to be announced later).

Subject: Certain advertised "vitality" products.

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH

September 21, 1938.

To the Editor:—I am enclosing herewith copies of correspondence for your information.

Sincerely yours,
J. C. GEIGER, M.D.,
Director of Public Health.

* * *

(COPY)

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH

September 10, 1938.

[Name of firm addressed]

Dear Sir:

It has come to my notice from several sources that there is a nationally advertised product purporting to contain all the necessary substances for vitality and which is being offered for sale through department stores.

Without attempting to pass on the possible value of this product with relation to its vital content, I wish to go on record, as Director of Public Health, against this form of the practice of medicine by commercial concerns. The incomplete scientific knowledge available at this time on the possible effects of the consumption of vitamins over an indefinite period of time fully justifies the attitude that caution should be observed in the use of such products. There is considerable question of what constitutes the proper dosage of vitamins in the various age groups.

An attempt to commercialize the sale of a product containing substances whose value to the general public health is still controversial is indeed ill-advised. Even if it is granted that the actual danger from the consumption of these products is relatively small there is as yet no definite information on the limits of safety. Vitamins are definitely in the class of medications and under that circumstance should be under the administration of a physician who has an opportunity to observe the progress of his patient rather than to be in the hands of a commercial distributor whose sole interest is the sale of his manufactured product and who may promise things that can't be delivered.

Sincerely yours,
J. C. GEIGER, M.D.,
Director of Public Health.

* * *

(COPY)

[Name of Firm addressed]

September 16, 1938.

Dr. J. C. Geiger,
Director of Public Health,
Department of Public Health,
101 Grove Street,
San Francisco, California.

Dear Doctor Geiger:

I am enclosing a copy of a letter purported to have been written and signed by you that has just been received by me from my customer, ——— Company in San Francisco.

Although you carefully name no names, my customer feels that your letter is, in some way, connected with [name of product]. As we both know, there are scores of products on the market all of which are in one way or another sold through department stores throughout the whole United States. I am returning this entire correspondence to [name of company] with the statement that I am sure that no man in your position would write such a letter as this about [name of product]. There must be some mistake.

Surely, a well-informed medical man of your high office knows that [name of product] is a biologically standardized product which supplies only those vitamins already thoroughly explored, which makes none but thoroughly credited, accepted claims on or within the package, and that the product is regularly sold by duly accredited and registered pharmacists under a specific ruling of the California State Board of Pharmacy. Consequently, I am writing my friends the [name of company] that there must be some mistake. We are sure that you cannot be referring to [name of product].

We would appreciate an acknowledgment of this letter.

Respectfully,
(Signed): HENRY B. SELL,
President.

* * *

(COPY)

CITY AND COUNTY OF SAN FRANCISCO
DEPARTMENT OF PUBLIC HEALTH

September 21, 1938.

My dear Mr. [name of firm]

In reply to your communication concerning vitamin products on the market, I am enclosing a copy of an executive order issued in 1934 concerning vitamin D milk. This represents the attitude of this department today just as it did four years ago.

I also wish to call your attention to the following action taken by the French Government:

"In December, 1936, the Academy of Medicine, in considering the question of the increase of the vitamin content of certain foodstuffs (milk in all its forms, flour, pastes, sugar, chocolate, etc.), pointed out that, while products thus treated are capable of having a useful action under certain circumstances, they are also capable of producing serious troubles, even death. Foods which have undergone special treatment with a view of giving them therapeutic properties must be considered as actual medicaments."

The administration of powerful medicaments should be under the constant supervision of a physician.

Sincerely yours,
J. C. GEIGER, M.D.,
Director of Public Health.

MEDICAL JURISPRUDENCE †

By Hartley F. Peart, Esq.
San Francisco

Blood Grouping Tests as Evidence of Non-Parentage

In *Arais* vs. *Kalensnikoff*, 95 Cal. Dec. 4, the facts were as follows:

Plaintiff, who was separated from her husband, commenced action to secure a judicial determination that defendant was the father of her illegitimate child. Plaintiff claimed that she had not had sexual intercourse with anyone other than defendant for some time and that she had frequently had relations with him. The defendant denied that he had ever had intercourse with plaintiff at any time. The trial court, with plaintiffs's consent, ordered that a Landsteiner blood test be made. The court appointed a reputable physician who administered the test and concluded that the child could not possibly be the offspring of the defendant if the plaintiff were the child's mother.

The trial court, in spite of the findings resulting from the Landsteiner blood grouping test, held that the defendant was the father of plaintiff's child. The case was first appealed to the District Court of Appeal and that court reversed the trial court on the ground that the blood grouping test constituted conclusive and unanswerable evidence of non-parentage. A hearing was then granted by the Supreme court which, after further argument by counsel, reversed the District Court of Appeal and affirmed the judgment of the trial court. The Supreme Court specifically held that findings based upon the Landsteiner blood grouping test do not constitute conclusive evidence of non-parentage, but only rebuttable evidence, *i. e.*, evidence that may be offset by contradictory testimony and believed or not believed by the trial court or the jury.

The opinion of the Supreme Court stated that under Code of Civil Procedure, Sec. 1978, no evidence is by law made conclusive or unanswerable unless so declared by some express provision of the Code of Civil Procedure, and that there was no section in the Code of Civil Procedure making blood grouping tests conclusive evidence of non-parentage. The court further held that blood grouping tests had not as yet attained sufficient certainty to be brought within the doctrine of judicial notice. That is to say, the court was of the opinion that findings resulting from blood grouping tests could not be accepted by the courts as an uncontrovertible scientific truth. In this connection the court pointed out that blood grouping tests cannot be used affirmatively to prove that a certain person is the parent of a particular child.

In most European countries courts have held that if the results of a blood grouping test indicate that paternity is impossible, such results are conclusive and beyond dispute by the parties. (See Note, 26 Cal. Law Review 456). Some jurisdictions in the United States follow the European view, for example, New York and Pennsylvania. California is apparently the first jurisdiction to refuse to consider the results of a blood grouping test to be conclusive evidence of non-parentage and to allow the testimony of witnesses to be received in evidence in contradiction thereof. A commentator in the California Law Review remarks that:

> While the case is one of first impression, it is contrary to the general trend of decisions, both concerning the blood group test in particular and scientific evidence in general.

The use of the Landsteiner blood grouping test for the purpose of proving non-parentage focuses attention upon one of the most perplexing problems confronting judges; that is, when is it safe to accept a scientific theory as an uncontrovertible fact. The rules of law are clear enough, *viz.*, that the laws of nature, the measure of time, geographic divisions, political history of the world and certain additional scientific or physical facts which have been proven beyond any doubt, are not matters subject to conflicting testimony, but, the difficulty arises when a new scientific development is offered as an uncontrovertible fact and is claimed to be entiled to take its place within the foregoing list. Judges as a whole are inclined to be very slow to accept any new subject of knowledge as conclusive and this hesitation accounts for the difference of opinion amongst courts with respect to the conclusiveness of the Landsteiner blood grouping test.

Inasmuch as all competent scientific authorities apparently assent to the proposition that the Landsteiner blood grouping test is wholly reliable and can prove beyond question that particular persons are *not* the parents of a particular child, it is seemingly quite unfortunate that judicial conservatism has prevented the acceptance of the scientific point of view by the law. It is the general rule in California that a finding of fact based solely upon the testimony of witnesses which controverts physical facts or which is based upon scientifically impossible testimony will be set aside on appeal as not supported by substantial evidence. The foregoing rule would seem to be applicable to the case under discussion. Yet, on the other hand, it must be conceded that the ends of justice are better served in the long run by caution in the acceptance of new scientific facts as conclusive than by overenthusiastic acceptance of new theories which may contain hidden flaws at the time undiscovered.

† Editor's Note.—This department of California and Western Medicine, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

SPECIAL ARTICLES

PROPOSED CALIFORNIA HUMANE POUND ACT IS REALLY AIMED AT STOPPING MEDICAL RESEARCH

The Society of American Bacteriologists, meeting in San Francisco, passed a resolution admittedly aimed at the miscalled "Humane Pound Act," now on the California ballot [for decision on November 8, 1938], warning against misguided efforts, "by direct and indirect means," to cut off the supply of animals needed for scientific research and for the preparation of biological products. Such activities, the resolution declared, "should be opposed by all enlightened members of the community."

Similar action will, of course, be taken by other scientific bodies, and, as on former occasions, by the authorities of the principal universities. These are, obviously, not merely "enlightened members of the community," but are, on this subject, precisely its best informed members, since they are the only ones who have made it their life work, and know, first hand, in detail, what goes on in the laboratories which —instead of the pounds—are the real objectives of this measure.

On this subject, they might be liars, as the "antivivisection" crusaders charge, but they cannot be ignorant. And they say that the horror tales of the antivivisection literature are fictions or distortions.

These authorities, furthermore, are not inhumane persons, and are not regarded as untrustworthy in the other relations of life. If the real purpose of the "Humane Pound Act" were to make pounds humane, and if it would accomplish this, they would be for it. And if the "cruelties" charged against their laboratories actually existed, they would be the first to take steps against them.

If these scientific men, on a matter on which they have first-hand acquaintance with all the facts, are falsifying the truth for pay, to promote the nefarious profits of fraudulent serum vendors, that is a far worse evil than the "cruelties" they are alleged to perpetrate or condone. For these include the men to whom we intrust the university training of the youth who are to guide the oncoming generation. To corrupt the minds and characters of a whole generation by subjecting its selected best to the formative influence of men of this degree of dishonor would be a worse menace to "humane" progress than the slaughter of all the stray dogs, guinea pigs, white rats and fruit flies in America.

If the responsible heads of our universities were this sort of men, the sooner we closed their institutions the safer we would be.

Furthermore, these very bacteriologists who passed this resolution are the leaders of the profession to which we entrust the protection of the public health. We drink our

water and milk unafraid, because they guard against its contamination by the germs of filth and disease. To their researches we owe the banishment of yellow fever and cholera and the virtual elimination of typhoid and diphtheria.

And the physicians, all of whom have worked in these laboratories, and who also deny the "cruelty" tales, are the very persons to whom we entrust our lives and our secrets when we are ill, and on whose advice we rely to avoid illness. They stand next to the confessional in the confidences they receive—and keep. If they, knowing what happens in these laboratories, would solemnly deny the truth, for pay, we should withdraw our confidence in them for all other purposes.

Ask your own doctor, whom you trust in everything else, if these tales are true.

This "Humane Pound Act," to be sure, does not directly prohibit animal experimentation, and there are a few of its advocates who support it from considerations of pound administration. For their purposes, however, the act is superfluous, since those purposes can be—and largely are—accomplished by other means. But any contact with the main mass of its proponents reveals that their purpose is to handicap the laboratories now, because they object to animal experimentation, with the view of prohibiting it later. Some of them are moved because they believe the tales of "cruelty." But the majority are opposed to medical experimentation because they are opposed to medical science. If they are right, this scientific age should adjourn.—Chester Rowell, in the San Francisco *Chronicle,* September 6.

THE USES OF ANIMAL EXPERIMENTATION

The conservative attitude of the medical profession has both good and bad aspects—good when it refuses the use of untried drugs and unproved methods of therapy, bad when it permits medical progress to be attacked and maligned without defending itself. This attitude permits the public to be deceived concerning medical progress and sometimes causes the sick to seek relief from undependable sources which promise help. *The Journal,* by its continual exposure of "quack" medicines and falsely claimed "cures," has for many years done a great service to the public as a whole. More difficult to combat than such deliberately fraudulent claims, however, is the destructive work of the small but vociferous group opposed to experiments on animals. Their "crusaders" each year spend large sums of money in an attempt to stop all experimental work in the biologic sciences. In spite of the proved facts concerning the whole science of bacteriology, learned almost entirely through animal investigation, they claim that no good has come through man's utilization of animals in laboratory study.

The antivivisectionists refuse to recognize the great and continuous fall of the death rate in the infectious diseases, the remarkable extension of life since the discovery of bacteriology and the beneficent progress of modern surgery as related to animal investigation. True, if their children acquire diphtheria they may use antitoxin, and if they develop appendicitis they may seek out a surgeon, but the relation of these therapeutic agents to research on animals is disclaimed. With these people argument and elucidation of the facts serve little purpose, for they twist the truth, misquote medical men now dead, and play on sentiment, not reason.

At present opponents of experiments on animals are proposing and advocating the so-called Humane Dog Pound Initiative in California, which will be voted on by a referendum in November. This cleverly constructed piece of legislation is apparently aimed against unnecessary suffering of dogs; actually it will make further animal investigation in the State of California difficult and hopelessly expensive. Such legislation, if passed, will seriously hamper further laboratory investigation in every state. Proper education of the public in (1) the methods of animal investigation and (2) the advantages that have accrued to the people from animal investigation should do much to bring about its defeat.

The articles now appearing in the *Country Gentleman* written by Paul de Kruif are a splendid assistance in this important task. In these articles de Kruif has exposed not only how much man has benefited, but how much the animals themselves have benefited from laboratory investigation. The tremendous decrease in Texas fever of cattle, hog cholera, bovine tuberculosis and foot and mouth disease are striking examples of how the use of a few animals in laboratory investigation has lessened or completely done away with the suffering of hundreds of thousands of animals. De Kruif has sharply emphasized this advantage by stating the tremendous financial saving to our farmers. Naturally, man cannot control human disease as completely as animal disease. The article in the September issue of the *Country Gentleman* depicts the possibilities for comfort and longevity which may follow the acquisition of exact knowledge through animal investigation. In succeeding issues the advantages which have accrued to man through similar animal experimentation will be made public.

This service to the continuance of medical research deserves recognition by the medical profession. Every physician may aid by calling the attention of patients and friends to these masterful statements.—*Journal of the American Medical Association,* September 10, 1938.

MEDICINE AT CROSSROADS

The whole question of assuring the American people of adequate medical care, which was discussed at length at the recent Washington conference, has suddenly been focused on one point by the action of Assistant Attorney-General Thuman Arnold in formally accusing the American Medical Association and the District of Columbia Medical Society of violating the federal antitrust laws. It is safe to predict that the settlement of the case will probably influence the methods of the practice of medicine in the United States for years to come.

The facts, at least as Mr. Arnold presents them, are simple. The Group Health Association, Inc., was voluntarily organized a year ago by 2,500 small-salaried government employees to provide themselves with medical care for a small monthly fee. When the association attempted to retain competent physicians, it found that the District of Columbia Medical Society had threatened to expel any of its members who might enter into an agreement with the association. It also discovered that the society had forbidden its specialist members to consult with physicians employed by the association, and that it had prevailed on several Washington hospitals to refuse admittance to the association's doctors. It is well known, as Mr. Arnold says, that the Washington episode is not unique, and that the medical societies have similarly opposed the organization of group medicine association and hospital insurance plans in several other cities.

If these ventures will inevitably lower the quality of medical care, and the American Medical Association can demonstrate that certainty, it is on strong ground. Plainly we must not embark on any scheme which will impair existing medical standards. But if the American Medical Association's objective is merely to freeze out present medical facilities into a state of permanence and to prevent the free and honest trial of new facilities, it is on exceedingly weak ground.

As it has been declared many times in recent years and as it now must be apparent to almost everybody, the very rich and the very poor today receive the best medical treatment. The rich can afford to engage the best physicians and surgeons. The poor can obtain free treatment—often from the same doctors—at a hospital or clinic. But the middle class, the people with incomes of from $1,000 to $2,500 a year, usually have great difficulty and frequently suffer real hardships in attempting to meet the cost of a serious illness. The group scheme offers them the opportunity of buying protection against the financial impositions of illness just as most of them now insure themselves against the loss of their homes by fire—through small monthly or yearly payments.

In reply to the antitrust charges, the American Medical Association has immediately revived the bogey of government regimentation and "socialized medicine." The essential point is that these voluntary, coöperative organizations —which nobody has to join unless he wants to—really promise to obviate the need of government subsidy and regulation.

Public funds and private charity already take care of the poor sick. Our present objective should be to forestall the necessity of caring for the middle class sick in the same way. Certainly from the taxpayers' standpoint it is much more desirable to encourage 2,500 government employees in Washington—or any other group of citizens—to finance their own medical care through a coöperative arrangement than to deny them that right and invite them to seek public or private assistance whenever they fall ill.

Mr. Arnold was careful to state in his opinion that he is not accusing the members of the medical societies of a moral offense. Indeed, he invited them as "persons of distinction and good will" to coöperate in ending the impasse "so that there may be free and fair competition between the forms of organization and the older types of practice." It is to be hoped that the American Medical Association's Chicago office will dismount from its high horse and join with the humble laity in a search for the just and intelligent course. —*The Boston Herald,* reprinted in the *Ontario Report,* August 22.

THE ENGLISH ABORTION TRIAL*

In April, 1938, a girl of fourteen was assaulted in England by several troopers of the Royal Horse Guards, and as the result of the assault she became pregnant. The organizer of the School Care Committee brought the girl to the attention of Dr. Joan Malleson, a well-known woman physican in London. It was Doctor Malleson's opinion that in view of the circumstances the pregnancy should be terminated, and she sent a letter to Dr. Aleck W. Bourne, one of the most distinguished British gynecologists, with the suggestion that someone of his standing should undertake the operation, preferably in a public hospital. Doctor Bourne, who is obstetric surgeon at St. Mary's Hospital and consulting obstetric surgeon at Queen Charlotte's Hospital, replied that he would be glad to admit the patient to St. Mary's Hospital and perform the operation. The girl was sent to Doctor Bourne and he had her admitted to the hospital, and after a week of observation curetted her on June 14. He then notified the police of his act and invited them to take whatever action they deemed proper under the circumstances. The Attorney-General considered the operation to be unlawful and accordingly brought Doctor Bourne to trial.

The English law on abortion had never been completely clarified before. A statute passed in 1861 forbade "the unlawful use of an instrument for the purpose of procuring a miscarriage." No definition, however, of what was lawful or unlawful was contained in that statute. An additional statute, the Infant Life Preservation Act, passed in 1929, reads as follows:

> Any person who with intent to destroy the life of a child capable of being born alive or by any wilful act causes a child to die before it has an existence independent of its mother shall be guilty of a felony, to wit, child destruction. No person shall be found guilty of an offense under this section unless it is proved that the act which caused the death of the child was not done in good faith for the purpose only of preserving the life of the mother.

Although this Act was seemingly intended to apply only to cases where the child is destroyed at the time of birth, it has been taken to apply also to ordinary cases of abortion, and has been interpreted to mean that an abortion may be performed "for the purpose only of preserving the life of the mother."

The trial took place on July 18 and 19, 1938, at Old Bailey before Mr. Justice Macnaghten and aroused wide interest in legal and medical circles. Doctor Bourne was charged with "unlawfully using an instrument with intent to procure the miscarriage" of the girl, the word "unlawful" having been inserted in the complaint at the suggestion and insistence of Mr. Ronald Oliver, the attorney for the physician. During his testimony Doctor Bourne stated that the question of when the termination of a pregnancy was justified was a constant problem with all who practiced gynecology. In October, 1935, he related, he had operated in a similar case. At that time the house surgeon declined to assist him when he learned the nature of the operation, and walked out of the operating room. "The refusal of my house surgeon to assist me led me to think very hard on this matter, and I decided on the next occasion to obtain a ruling of the court. That is why we are here." His interpretation of the law, Doctor Bourne said, based on everyday practice of men of repute in the medical profession, was that it was justifiable to perform the operation where there was danger to health. "I cannot draw a line between danger to life and danger to health," he said. "If we wait for danger to life the woman is past assistance." In this particular case he felt that although there was no immediate danger to the life of the patient from the pregnancy, the mental injury would last a very long time and she would suffer from nervous, psychoneurotic and other troubles, with their secondary physical illnesses, perhaps all her life. It was in order to avoid these results that he had decided to operate. He thought that 99 per cent of his colleagues would agree with him under such circumstances.

Three experts were called by the defense: Dr. John Rawlings Rees, a consulting psychiatrist; Dr. William Gilliatt, an examiner in midwifery and diseases of women for Cambridge and London Universities; and Lord Horder, the physician to the King. These men gave testimony in favor of Doctor Bourne, and stated that under the conditions described they would have advised the termination of the pregnancy.

In his summary, Mr. Oliver, the attorney for the defense, pointed out that Doctor Bourne had undertaken this operation for purely humanitarian reasons and without any compensation. "His attitude," said Mr. Oliver, "is: 'What I have done is lawful, is right, is honest and I have not committed an offense.' It was done to get the law declared so that there should no longer be this controversy among the public and in the medical profession as to what a doctor is allowed to do and what he is not allowed to do." He asked the jury to take a wide and liberal view of the meaning of the phrase "preservation of the life of the mother." The mental health of this girl, he said, was likely to be gravely prejudiced for the rest of her life, and upon her mental and physical health her life ultimately depended.

The Attorney-General, Sir Donald Somervell, insisted, in turn, that a distinction should be made between the preservation of health and the preservation of life, and that in this case the abortion was performed not "for the purpose only to preserve life."

In his summary to the jury, Mr. Justice Macnaghten pointed out that this case differed from the ordinary type of abortion case that came before the court. Doctor Bourne, he said, "a man of the highest skill, openly performed the operation in one of the great hospitals. He performed it as an act of charity, believing that he was doing the right thing, and that in the performance of his duty as a medical man devoted to the alleviation of human suffering he ought to do it." The justice urged the jury to take a *reasonable* view of the words 'preservation of the life of the mother.' "I do not think," he said, "that it is contended that these words mean merely for the preservation of the life of the mother from instant death. . . . All life depends on health and it may be that health is so gravely impaired that death results."

"If you think," he continued, "that the Crown have satisfied you beyond all real doubt that Doctor Bourne did not do this act in good faith for the purpose of preserving the life of the girl, then he is guilty of the offense with which he is charged. If the Crown have failed to satisfy you of that, then by the law of England he is entitled to a verdict of acquittal. The case is a grave one and raises matter of grave concern both to the medical profession and to the public."

The jury, which included two women, retired for forty minutes, and returned a unanimous verdict of "Not Guilty." Doctor Bourne was then discharged.

The trial had aroused widespread interest and the court was crowded with "London's most fashionable physicans and social lights." When the verdict was announced it was received with loud applause. It clearly was a popular verdict in England, and the acquittal of Doctor Bourne is considered a most important event in English medico-legal history.—*Journal of Contraception,* September, 1938.

* A summary of the recent trial of Dr. Aleck W. Bourne.

LONGEVITY OF THE AMERICAN PEOPLE

The women in our population live on an average about four years longer than men. This observation is based upon a life table for the general population in the United States for 1935, and it remains true according to a life table just completed for 1936, although for each sex separately there has been a slight recession. According to the figures for 1936, the average length of life for white males is 60.18 years and that for white females 64.36 years, as against corresponding figures of 60.72 years and 64.72 years in 1935. These facts are gathered from life tables for the general population of the United States computed in the Statistical Bureau of the Metropolitan Life Insurance Company, which are shown in abridge form in Table 1 separately for total persons (white and colored) and for white persons by sex. Data relating to longevity since 1901 will be found in Table 2.

The last three columns of Table 1 show the mortality rates upon which the expectations of life are based. When comparison is made of the mortality of white males with that of white females, it is found that the advantage of the latter is not uniform through all ages of life. At birth, mortality among males is 28 per cent in excess of that among females; at age 3 the differential is only 11 per cent. At age 50 the excess for males is 48 per cent, but with advancing age the death rates of the two sexes tend to become more nearly equal.

On the basis of total persons, regardless of color or sex, it wll be seen in Table 1 that the expectation of life, which starts with 60.81 years at birth, rises to a maximum of 63.13 years at age one. A half-century of life is still remaining to those who reach age 16. By the time age 34 is reached, the average person has as many years before him as behind him, and at age 46 the average citizen may still look forward to a quarter-century of life. Even for those who have attained the proverbial three score and ten, there still remain, on an average, nine and one-fourth years.

Although the average length of life for the general population in the United States during 1936 (60.81 years) fell by about one-half year below the record for longevity established in 1935, when a level of 61.37 years was reached, the slight recession is in no sense a cause for alarm. The general level of longevity for a number of years has been very high, and the figure for 1936 marks a gain of practically one and one-quarter years since 1930, the year of the last census. Compared with an average length of life of 49.24 years in 1901, the year for which the first official life table was published, the average length of life in 1936 establishes an improvement of 11.57 years in a period of thirty-five years. It will be observed from the data in Table 2 that the improvement in longevity among white females since the turn of the century has been greater than that among white males. Thus the average length of life for white females in 1936, namely, 64.36 years, shows a gain of 13.28 years as compared with that in 1901, namely, 51.08 years. In the case of males the figure for 1936, namely, 60.18 years, represents a gain of 11.95 years over that for 1901.

TABLE 1.—*Expectation of Life and Mortality Rate Per 1,000 at Specified Ages for Total Persons (White and Colored) and for White Persons by Sex, United States, 1936*

	Expectation of Life, Years			Motality Rate Per 1,000		
Age	Total Persons	White Males	White Females	Total Persons	White Males	White Females
0	60.81	60.18	64.36	52.17	54.66	42.85
1	63.13	62.63	66.22	7.64	7.57	6.45
2	62.61	62.11	65.64	3.88	3.97	3.39
3	61.86	61.35	64.87	2.71	2.70	2.43
4	61.02	60.52	64.02	2.13	2.16	1.93
5	60.15	59.65	63.15	1.79	1.86	1.61
10	55.58	55.11	58.54	1.19	1.31	.98
15	50.95	50.49	53.84	1.86	1.86	1.37
20	46.51	46.02	49.27	2.91	2.68	2.11
25	42.22	41.66	44.82	3.58	3.13	2.69
30	37.97	37.31	40.43	4.07	3.63	3.09
35	33.77	33.02	36.07	5.24	4.87	3.79
40	29.70	28.88	31.77	6.72	6.63	4.70
45	25.73	24.89	27.55	8.82	9.19	6.25
50	21.94	21.12	23.47	12.31	13.17	8.88
55	18.35	17.59	19.57	16.65	18.50	12.49
60	14.96	14.32	15.88	24.31	27.14	19.31
65	11.93	11.40	12.56	37.28	40.94	31.24
70	9.28	8.87	9.67	54.87	59.71	48.37
75	7.00	6.70	7.19	84.88	91.93	78.61
80	5.18	5.00	5.23	126.31	133.75	121.69
85	3.69	3.56	3.68	190.21	196.23	191.04
90	2.60	2.47	2.65	282.69	298.88	283.91

TABLE 2.—*Expectation of Life at Birth Among Total Persons (White and Colored) and Among White Persons by Sex, United States from 1901 to 1936*

Year	Expectation of Life at Birth, Years		
	Total Persons	White Males	White Females
*1936	60.81	60.18	64.36
*1935	61.37	60.72	64.72
*1934	60.79	60.24	64.18
*1933	61.26	60.86	64.40
†1932	61.07	60.69	64.38
†1931	60.26	59.88	63.56
1929-1931	59.57§	59.31°	62.83°
¶1919-1920		55.33	57.52
‡1910	51.49	50.23	53.62
‡1901	49.24	48.23	51.08

* Total United States.

† United States, excluding Texas.

‡ Original Death Registration States.

§ This figure relates to 1930 only for the United States, excluding Texas.

¶ Aggregate of twenty-seven states; not computed for total persons.

° United States, excluding Texas and South Dakota.

As is only to be expected, the figures in Table 2 give evidence that we can hardly expect, henceforth, as rapid gains in longevity as were experienced in the most remarkable period of the second and third decades of the present century. While in the first decade, 1901 to 1910, the increase in longevity was two years among while males and 2.54 years among white females, in the next decade, from 1910 to 1920, the remarkable gains of 5.10 and 3.90 years, respectively, were recorded. The ten-year period from 1920 to 1930 witnessed an even more marked improvement in longevity, namely, 3.98 years for white males and 5.31 years for white females. The first six years of the current decade have continued the advance, though at a reduced pace, the gains being less than one year for white males and about one and one-half years for white females. The fact is that in recent years, 1932 to 1936, the average length of life has been almost stationary, fluctuating between 60 and 61 years for white males and between 64 and 65 for white females.

Unless some altogether extraordinary developments should arise, we cannot reasonably expect the average length of life to go on improving indefinitely. The rate of any further advance must almost inevitably slacken as we approach an optimum obtainable under present health and living conditions. That we have not reached this optimum should be obvious when we consider that all the advantages of modern medical science are not yet as widely available as they can be made with proper organization. No doubt medical knowledge will continue to advance, and application will always lag a little behind discovery. It is the task of workers in public health to make the lag as short as possible and to make medical and public health practice as up to date and as nearly in unison with scientific knowledge as possible.—*Statistical Bulletin,* Metropolitan Life Insurance Company.

MEDICAL SOCIETY NOT AMENABLE TO TRUST LAW PROVISIONS

District of Columbia Group Takes Stand Against Action on Curtailment

Washington, September 5.—The Medical Society of the District of Columbia has told the Department of Justice that it does not consider itself amenable to the anti-trust laws, a violation of which had been charged against members of the society by the department in connection with the society's opposition to a hospitalization group.

Assistant Attorney-General Thurman Arnold replied to the society, stating the department's expectation that the medical society would "discontinue coercing qualified persons in the practice of their profession."

Anti-trust proceedings were brought on charges that members of the society were expelling, or threatening to expel, physicians employed by the Group Health Association, Inc., composed mostly of government employees who sought low-cost hospitalization.

George P. Hoover and William E. Leahy, attorneys for the society, wrote the department: "After careful examina-

tion of the law we reached the conclusion that the medical society did not come within the range of the anti-trust laws."

Stating that the society "has not done any act which would make it subject to a charge of having violated the provisions of said laws," the letter added:

"Inasmuch as you entertain different views as to the law, we do not feel that anything constructive may be accomplished by any further discussions."

The lawyers reiterated that they represented only the local medical society, "since it is apparent that your field of inquiry extends far beyond" any of its activities.

In replying, Mr. Arnold said that the attorneys, in attempting to give the substance of a conference between them and members of the department, had made a statement which "may have been inadvertent, but which nevertheless requires explanation in order that no one may be misled as to the policy of this department."

The statement, made by Mr. Hoover, was as follows:

"At the conference with you, you stated that it was not the policy of the Department of Justice to coerce any group for the purpose of having them desist in any course in which they might have been engaged."

"This, of course, is not our position," Mr. Arnold went on. "On the contrary, the principal purpose and the policy of the department in prosecuting violations of the anti-trust laws is to compel the individuals or the group involved to desist from such violations. The purpose of any criminal penalty is its deterrent effect.

"It may be that the statement in your letter was only an error in phraseology. In view, however, of your release to the press, I think it advisable to make it perfectly clear that the department does expect the medical society to discontinue coercing qualified persons in the practice of their profession.

"I wish to make it clear that any further practices of this kind will be prosecuted. The very purpose of our public statement was to serve as a warning of that prosecution policy."—*The Recorder,* San Francisco, September 6.

$10,000 A YEAR MAN HITS DOCTOR'S BILL

New York, August 24.—It is coming on toward the deadline, so there is not enough time today to settle here, for good and all, the issue of socialized medicine. However, there are some letters at hand which will do for fuel for argument, one contending that a doctor is overpaid at $200 for doing an appendectomy and saving a solvent patient's life.

"We could not do without water for a month," says this one, and adds that we would starve for lack of food, proceeding then to challenge, "is a month's supply of water necessarily worth $200? And one who charged a starving man $200 for a single meal—wouldn't he be regarded as devoid of humanity?"

Well, a drink of water has been known to sell high in certain frontier places where water was packed in casks on burros, and in such cases if a man lacked a dollar or whatever the price to pay for a drink the price might as well have been $200 as far as he was concerned.

The same argument goes for the single meal to save a life. Many a man with a thin dime in his pocket has been turned back into the snow because the price of a flop in some fleabag on South Clark or West Madison Street, Chicago, or on the Bowery, New York, was 15 cents.

WHAT'S THE DIFFERENCE?

And there is just no reckoning the number of hungry men who have gazed in at the windows of restaurants, even the dirty spoon joints, too weak and famished to drool, and continued to starve because they couldn't buy a cup of coffee and a roll, much less a meal. In such cases what difference does it make whether the price of a flop or a meal is 15 cents or $200?

Just after prohibition began the Salvation Army placed in charge of one of its down-and-out clubs, one of those great big, clear-eyed, right-thinking, clean-living, muscular Christians of the Y. M. C. A. type, who hated anyone who took a drink and would strut his muscularity and his particular interpretation of Christianity by heaving out all the sick and snaggle-toothed and busted bums who made the mistake of looking for Christian kindness there. He wanted only God-fearing respectables, and he used to boast of the number of his permanent lodgers who had steady jobs, forgetting that his place was nominally a charitable institution and that these deadbeats were able to pay reasonable rates for private quarters, as independent men should be compelled to.

The same deadbeat temperament takes advantage of free or nominal fee medical or surgical service intended for the truly poor, and this abuse has become so raw that in Washington all members of both houses of congress and all members of the cabinet, by a cheap and greedy distortion of an act of congress, are now entitled to such service in the naval hospital practically free.

COULDN'T PAY DOCTOR'S FEE

I doubt that even in frontier desert places any man ever perished for lack of the price of a glass of water, but there are thousands of doctors who give away free the same service that would be unavailable to desperately sick people if they insisted on their full fees. But a little lower specimen of insect lift than the doctors who won't treat the sick poor free is that type of man or woman who can pay a reasonable amount for relief from suffering but imposes on the doctor's circumstances and his charity.

A widow of a doctor residing in Washington writes of a government clerk whose little boy had been carried through a desperate illness and who then said to the doctor, "I know I owe you a bill and I am sorry I can't pay it, but I am buying my house and that keeps me strapped."

A doctor writes, "I spend half my time in charity wards and clinics," and tells of a midnight call to a suicide case which kept him up all night and required daily service for ten days. When the patient got well he sent a bill, and finally sued. But on the very day the court gave judgment for his fee the patient jumped to another state.

RED LIGHT FOR GERMAN MEDICINE

Another doctor says Bismarck gave Germany state medicine fifty years ago and that nothing new in medicine has come out of Germany, formerly a leader in scientific medical investigation, in twenty-five years, while the profession in this country has eradicated malaria, yellow fever, typhoid, diphtheria, and scarlet fever. He says, too, that his British friends say the British panel doctor is less careful, considerate and conscientious than others and that "the recipient of this service would prefer to call other than a panel doctor."

And here is a man charged $200 for an abdominal operation who thinks the doctor robbed him to equalize his service to the poor.

"Why can't I nominate the beneficiaries of my bounty?" he asks. "Or why shouldn't the free patients be told that I, not the doctor, donated the operation?"

A fair suggestion, but listen to him. He gets $10,000 a year, he says, after his income taxes are paid, and he thinks $200 is too much to pay for the saving of his life.—Westbrook Pegler in Sacramento *Union,* August 25.

COURT OUTLAWS MEDICAL PLAN

Supreme Tribunal Rules Socialization for Profit Illegal

San Francisco, September 2 (AP).—A divided State Supreme Court decided today that the Pacific Health Corporation, sponsoring a socialized medicine plan for profit, could not legally operate in California.

Three of the seven judges dissented. At the same time the court approved the coöperative health service system established in San Francisco by charter amendment which would furnish medical care to city employees, teachers, and their dependents for specified compulsory monthly contributions.

DOCTRINE CITED

The so-called socialized medicine cause thus received one knock and one boost from the court at the same time.

Only one judge dissented in the city health service plan case—Douglas L. Edmonds. He also was among the trio who dissented in the Pacific Health Corporation case, writing the dissent himself.

The majority opinion in the Pacific Health Corporation case held "it is an established doctrine that a corporation may not engage in the practice of such professions as law, medicine or dentistry."

SOCIAL ISSUE

It stated, the health corporation, a San Francisco organization, provided medical, hospital and laboratory service to those belonging for specified charges but offered the services only of a certain approved list of doctors.

After commenting that the question of group medical service had become a social issue the majority opinion stated "there can be no true declaration by this court that a change in social viewpoint now requires the abandonment of the rule against corporate practice of medicine."

POSSIBILITY SEEN

"Such a drastic change," the court ruled, "should come from the Legislature after full investigation and debate.

"It is perfectly possible to bring adequate medical service to the vast numbers of people who now can ill afford it by some means which will protect both the profession and the public from the evils of corporate control . . ."

The opinion termed an "illusory apprehension" the argument that the decision would outlaw fraternal, religious, hospital, labor and similar organization health plans. It pointed out one distinction in these plans, namely, that the public was not directly solicited.

CHIEF JUSTICE CONCURS

The Edmonds dissent, concurred in by Chief Justice William H. Waste and Frederick W. Houser, pointed out that "under the Workmen's Compensation Act, insurance companies, through doctors, are daily providing medical service for thousands of injured employees to the apparent satisfaction of all concerned."

In the city health service decision, the court issued a mandate to City Controller Harold J. Boyd of San Francisco to release to the Health Service Board money already collected, at the rate of $2.50 a month, from nearly 12,000 employees and teachers.

BENEFIT SEEN

In this case the court ruled there was "no question of the power of the city to establish a system of medical service for its employees or their dependents." It reasoned that proper medical attention and the knowledge it would be forthcoming, whenever needed, would have a beneficial effect on the health and efficiency of employee.

Judge Edmonds's dissent countered with the theory that the plan had no direct relation to public health or general welfare, and was nothing more than "social health insurance for a restricted group of individuals." He contended that the majority decision would open the way for city employees to form coöperatives for buying groceries, or meeting any other expense."—Los Angeles *Times*, September 3.

MEDICAL SERVICES TAKE 6 PER CENT OF THE FARM FAMILY LIVING BUDGET

Medical services for the farm family represent about 6 per cent of the cost of all goods and services required for farm family living, according to a recent joint report by the Bureau of Agricultural Economics in coöperation with the Agricultural Adjustment Administration and the Bureau of Home Economics.

Cost of medical services for farm families, it was stated, is equivalent to annual expenditure of about $265,000,000 for the United States, or an average of $39 per farm family. Other medical costs, such as medicine, drugs, health and accident insurance, bring the total bill for farm family medical care to about $350,000,000 a year. That's an average per farm family per year of about $51 or 8 per cent of the average farm family budget.

Farm families generally devote about 85 per cent of their total expenditures for living expenses to the purchase of commodities. The other 15 per cent goes for services of various sorts. Of these, medical services are the most important single group.

The report is the first of a series dealing with prices paid by farmers for services and commodities in the years since 1910. Other reports in this series will deal with prices paid by farmers for machinery, building materials, clothing, food, electricity, and other articles. The series is one part of the income parity study to be used by the Department of Agriculture in administering the Agricultural Adjustment Act of 1938. Other parts of the study are farm income, expenses of agricultural production, and income to farmers from nonfarm sources.

YEAR-TO-YEAR CHANGES SMALL

Medical service rates to farmers do not fluctuate greatly from year to year. They increased 21 per cent, however, from the 1910-1914 period to 1924-1929. In the early thirties the economic recession brought some lowering of rates, but from 1932 to 1935-1936 the average of rates for the country as a whole was unchanged at 16 per cent above the 1910-1914 level. On the other hand, it was pointed out that the increase in medical service rates has been accompanied by an improvement in the quality and availability of medical services. Improved transportation facilities and an increase in the number of hospitals have made medical care more readily available to farm folks.

More farm folks, it was reported, now come to the doctor than in the earlier days of rural health service. Except for this increased efficiency in the use of the doctor's time, it was said, there probably would have been more of an increase in rates for medical services in rural areas during the past twenty-five years.

RATES VARY BY REGIONS

The report also deals in detail with costs of hospital service, fees for physicians, dentists, oculists, and optometrists, and charges for nurses' services. The increase in fees from 1910-1914 to 1935-1936 varied somewhat among the several services. Physicians' fees increased 13 per cent, dentists' fees were up 22 per cent, oculists' and optometrists' fees 14 per cent, hospital charges 17 per cent, and nurses' fees were 23 per cent higher.

During the last decade or more, rates in the New England and Middle Atlantic regions have been maintained at relatively high levels, reflecting, in part, the greater stability of farmers' incomes in these regions. On the other hand, in the West North Central region, where the severe droughts in 1934 and 1936 reduced farm income sharply, rates in 1935-1936 were only 9 per cent above the prewar level.

Index numbers of changes by regions are shown in the following table. In general, medical service rates to farmers and the expenditures for medical services are highest in the Pacific and Mountain states and lowest in the Southern states.

Index Numbers of Fees for Medical Services to Farmers, by Regions, 1910-14, 1924-29, 1932, and 1935-36 (1910-14=100)

Region	1910-14	1924-29	1932	1935-36
New England	100	133	132	133
Middle Atlantic	100	138	133	132
East North Central	100	123	118	119
West North Central	100	117	112	109
South Atlantic	100	121	118	122
East South Central	100	124	121	121
West South Central	100	119	107	111
Mountain	100	116	110	112
Pacific	100	115	113	112
United States	100	121	116	116

In the past, the Bureau of Agricultural Economics has indicated the trend of prices paid by farmers for articles on the basis of prices paid for commodities only. Data on changes in service rates are needed to complete the picture. If provision is made for collecting current data on service rates to farmers, it is stated, these service rates should be combined with commodity prices to form a comprehensive measure of changes in rural living costs.

Since medical service rates have not changed greatly and medical care constitutes less than 10 per cent of the budget, the adding of an index series of these rates to index numbers of prices paid by farmers for commodities would have little effect upon the index. The tendency would be to

smooth the index. It would be slightly lower in the period 1924-1929, slightly higher in 1932, and slightly lower in 1936. As a measure of purchasing power it would be more accurate than the index number of prices of commodities but not very different.

PUBLIC HEALTH IN CALIFORNIA—1937-1938 *

Since the last meeting of this organization public health conditions, in so far as communicable disease control is concerned, have reflected great credit upon local health authorities. Diphtheria and typhoid fever were lower in prevalence last year than at any time in the history of the state. Animal rabies was more prevalent than for many years and there were no less than three human deaths from this disease. The St. Louis type of epidemic encephalitis appeared in California—the first time that it has been encountered west of the continental divide. More than 100 cases, 40 per cent of which were in the younger age groups, were investigated by the California State Department of Public Health. No other major outbreaks of communicable diseases were reported.

Migratory agricultural laborers in the San Joaquin Valley, particularly, caused considerable concern to many governmental agencies and unofficial organizations as well. Typhoid fever and smallpox appeared among these laborers, but through the intervention of local officers, assisted by state employees, all outbreaks of these diseases were brought under control and many thousands of workers were immunized.

Plague was demonstrated in rodents and in fleas taken from a wide variety of rodents during the past year. There seems to be no specific geographical area to which plague infection is confined. It is encountered at high elevations and at sea level, in the northern as well as southern areas of the Pacific slope. There are many seemingly paradoxical findings in rodent plague which will be discussed by Doctor Meyer in his paper to be presented this morning. No human cases of the disease have occurred in California since our meeting of last year.

The development and growth of the program for the control of venereal diseases is an outstanding feature in the progress of public health. Some of the most conspicuous accomplishments are indicated in the following facts:

1. Efficiency in reporting cases of venereal disease has improved greatly. There was an increase of 44 per cent in 1937 and during the first half of 1938 there is an indicated increase of 50 per cent over 1936. In February of 1937, the month that the State Bureau of Venereal Diseases was reorganized, there were 889 cases of gonococcus infection reported and in June of 1938 no less than 1,514 such cases were reported. Syphilis reports increased from 828 in February of 1937 to 2,335 in June of 1938.

2. During the two years ended June 30, 1938, treatments administered in cases of syphilis and gonococcus infection totaled 878,679. Of these, 329,165 were given during the first year of the biennial period and 549,514 during the second year.

3. The number of blood tests for syphilis performed in the State Bacteriological Laboratory increased from 3,416 in July of 1936 to 10,063 in June of 1938.

4. Public health nurses employed by the Bureau of Venereal Diseases during the four months ending with June, 1938, located sixty-nine sources of infection, 411 contacts and 1,082 cases in which treatment had lapsed.

There is food for thought in the statement that if the same morbidity rate for syphilis had prevailed in California last year as prevailed in Sweden in 1934 there would have been only 457 reported cases in the state instead of 17,282 cases reported.

It is admitted, generally, that the educational campaign carried on by official, and also unofficial organizations throughout the United States, has accomplished as much in the improvement of general health conditions as it has in the relief of tuberculosis. Since the tuberculosis campaign originally was based largely upon education in the rules of hygiene, it would seem that the campaign for the control of syphilis, because of its greater complexity, may be productive of more extensive results in providing the general public with exact scientific information relative to the major infectious diseases, their modes of treatment and methods of control. The individual who acquires specific information relative to the infectiousness of syphilis is likely to acquire reliable information relative to the communicability and control of most other infectious diseases. If successful, such a campaign will go far toward the establishment and maintenance of confidence in all public health procedures.

Also, the attitude of the health officer toward the venereal disease campaign may have a very direct bearing upon the success of all other activities that may be conducted by his department. The public relations program must, of necessity, vary according to the status of public opinion in the various local communities. Nevertheless, a definite stand in matters related to the control of venereal diseases must be taken by every health officer. Full support should be given to the program everywhere.

At the present time no less than 81½ per cent of the population of California is under the administration of whole-time public health service. Twenty-four counties (including San Francisco City and County) and ten municipalities have public health departments whose employees devote their whole time to the duties of their respective offices. Since the last meeting of the Health Officers' Section the Fresno City Health Department has been reorganized upon a whole-time basis and the counties of Solano, Sonoma and Tulare have joined the ranks of those employing whole-time county health units.

Any review of public health in California during the past year must, of necessity, give recognition to new demands for service that have led to the alteration or expansion of old programs and the development of new procedures in public health administration. There has come a general growth in those services that are not directly concerned with the control of communicable diseases. To be sure, there has been no gap in the practice of procedures for immunization against smallpox and diphtheria, which must always be regarded as standard in any official public health program. The low incidence of these and other diseases indicates that local health officers throughout most of the state have not neglected their activities in the prevention and control of communicable diseases.

There is a marked tendency, however, to regard the human being as a social unit in the structure of government rather than as a group of cells under control of biological laws. Of course, those factors that have to do with heredity, physical growth, resistance to disease and immunity are still existent. There has come no sudden biological transformation in the human being, but he has become regarded today, more than ever before, as a patient rather than as a case.

Services that have heretofore been denied to a large proportion of citizens are now readily available. More intensive and incessant demands, in fact, may extend our public health program into new fields, such as control of cancer and other chronic diseases through treatment, more effective and more extensive education in healthful living, broad social services and activities that may even be undreamed in the light of our present knowledge.—*Bulletin,* California Department of Public Health.

* W. M. Dickie, M. D., Director California State Department of Public Health.

Read before the Health Officers' Section, League of California Municipalities, Santa Barbara, September 6, 1938.

AN INVESTIGATION OF THE NARCOTIC EVIL *

Mr. Coffee of Washington: Mr. Speaker, this bill proposes an appropriation for making a survey of narcotic-drug conditions in the United States.

A question naturally arises as to why such a survey is desirable. The answer cannot be given without first gaining

* Speech of Hon. John M. Coffee of Washington, in the House of Representatives, Tuesday, June 14, 1938.

A discussion of House Joint Resolution 642, to provide for a survey of narcotic-drug conditions in the United States by the Public Health Service. Introduced by Mr. Coffee of Washington, April 7, 1938. Referred to the Committee on Interstate and Foreign Commerce and ordered to be printed.

an inkling of the narcotics situation. We are especially concerned with the economic aspects of the situation.

ECONOMIC ASPECTS OF NARCOTICS

It is estimated by the American Association on Drug Addictions, of Seattle, that the annual cost to the taxpayers of this country of narcotics addiction, chiefly opiate addiction, is of the order of $2,735,000,000, or about $80 per family. It is claimed that this is a needless burden imposed on the people, not by conditions inherent in the problem of drug addiction, and not by the operation of law, but by the mistaken interpretations of law made by the Federal Narcotics Bureau.

If this claim is justified, the Narcotics Bureau stands as the costliest bureau or governmental department in the world, and the Commissioner of Narcotics ranks as far and away the costliest man in the world. He and his predecessor, a prohibition officer, have been in the control of the narcotics situation for seventeen years.

PURPOSE OF PROPOSED INVESTIGATION

The purpose of the investigation proposed in this bill is to evaluate these claims, with the expectation that if they are found valid action will be taken speedily to reform the evils of the situation.

TWO TYPES OF LAWS TREATING OF NARCOTICS

There are two types of federal laws supposedly governing the narcotics situation: (1) An import law providing that crude opium and coca leaves may be imported under certain conditions, but forbidding the import of any refined products or alkaloids of either drug; and (2) the Harrison Special Tax Act of 1914, commonly called the Harrison Narcotic Act, which imposes a head tax on all legitimate handlers of narcotic drugs, and (as revised in 1918) a special tax also on the narcotic drugs manufactured from the imported crude substances.

The first of these laws I shall not consider at the moment beyond pointing out the obvious extreme difficulties encountered in the endeavor to prevent smuggling of products of such small bulk as the alkaloids, morphin, heroin, and cocain, the dosage of which is measured in grains or fractions of a grain. In another connection it will be noted that the opium alkaloids in particular are admittedly smuggled into the country constantly to the extent of many tons annually. It will be noted also that the smuggling racket was a direct outgrowth of the operation of the other narcotics law, the Harrison Act.

HARMFUL EFFECT OF HARRISON ACT

In examining the Harrison Special Tax Act we are confronted with the anomaly that a law designed (as its name implies) to place a tax on certain drugs, and raise revenue thereby, resulting in reducing enormously the legitimate importation of the drugs in question, while developing a smuggling industry not before in existence. That, however, is only the beginning. Through operation of the law, as interpreted, there was developed also, as counterpart to the smuggling racket, the racket of dope peddling; in a word, the whole gigantic structure of the illicit drug racket, with direct annual turn-over of upward of a billion dollars.

PITY THE POOR ADDICT

Incidental effects were the persecution of perhaps a million victims of the diseased condition known as drug addiction, the great majority of whom had been law-abiding, self-respecting, self-supporting citizens, but who now became human derelicts and were thrust by thousands into jails and prisons simply because they could not legally secure the medicine upon which depended their integrity of mind and body. There were no narcotics prisoners in federal prisons prior to the passage of the Harrison Act. Ten years later, more than one-third of all convicts in federal prisons were narcotic cases.

The total number of such federal narcotic prisoners during the period since the Harrison Act began to operate as potent maker of criminals is of the order of 75,000, with aggregate prison sentence of upward of 100,000 years. No other statute ever operated to make criminals on any comparable scale.

MISINTERPRETATION AT FAULT—NO INHERENT DEFECTS IN BILL

Let me repeat, however, that no such dire effects were inherent in the Harrison Act itself. The social and economic disaster involving an army of sick people came about through bureaucratic action which is claimed to have been based on misinterpretation of the law—misinterpretation which is alleged to have set at defiance the clear decisions of the Supreme Court—illustrating incidentally the often overlooked fact that the high tribunal is purely advisory in function, having no power whatever to enforce its decisions.

COURTS HOLD HARRISON ACT TO BE A REVENUE BILL

Let us get down to cases. The essence of the Harrison Act is the provision that no slightest modicum of any narcotic drug shall get to the ultimate consumer in any manner whatsoever except at the hands of a registered physician—we may overlook dentists and veterinary surgeons for the present purpose. There is no reference to the uses of narcotics in the law, and no reference to drug addicts or drug addiction. The Supreme Court has ruled—Linder case, 1925; Nigro case, 1928, and so forth—that the law is a pure revenue measure, and that federal law has no control over the practice of a profession—reiterated, with specific citation of Linder case, in the A. A. A. decision of 1936.

INHUMANITY TO ADDICTS

The Narcotics Bureau ignores these decisions and assumes authority to prevent physicians from even the attempt to cure narcotic addicts unless the patients are under forced confinement. The addicts number, by the very lowest estimate, at least 100,000. The institutions that will receive them as patients are almost nonexistent. It follows that the prohibitory mandate of the Narcotics Bureau effectively denies treatment to the vast majority of narcotic addicts.

A GREAT INJUSTICE OF MODERN TIMES

It is believed that this is the first instance in all history of the denial of medical treatment to a class of citizens of whatever status or capacity. The fact that the Supreme Court has declared that narcotic addicts are diseased and proper subjects for medical treatment makes the action of the Narcotics Bureau peculiarly paradoxical. The paradox is emphasized by the further fact that the Federal Government has erected a beautifully equipped hospital for treatment of narcotic addicts at Lexington, Ky. Most of the patients are first condemned to prison, then transferred to the hospital. Voluntary cases may also be received. But the total capacity of the institution is only about 1,000. At least a hundred such institutions would be required to meet the needs of the existing addict population—five or ten times that if the newer estimates of that population are valid.

ADDICTION, ONCE DEVELOPED, IS CHRONIC

The erection of a hundred or a thousand such institutions, however, would by no means solve the narcotics problem. Addiction, once developed, is a very chronic condition. It is admitted by the authorities, including the narcotics commissioner, that very few "cures" result from incarceration for a one-year period. It has been suggested that a five-year segregation is the least that can be expected to restore the average addict. The idea of incarcerating even a hundred thousand, let alone a million, unfortunates for a term of five years is rather startling—especially considering that they are sick people, for the most part of average respectability and moral status, not markedly handicapped by their infirmity.

UNIVERSAL IMPRISONMENT OF ADDICTS IMPOSSIBLE, HEARTLESS, AND UNSOUND

In any event, such effort would be mere temporizing. Even if the miracle of curing all existing addicts were effected in five years, we should be no better off, because the dope peddler, deprived of his present market, would instantly set to work to develop a new market, and a perennial new crop of addicts would be in evidence.

THE REMEDY IS SIMPLE

But what is the alternative? Fortunately, the answer is simple. If the Harrison Act were allowed to operate as was designed, all victims of drug addiction disease—"narcotoxia" it is technically termed—would come under medi-

cal supervision; and, on prescription, would be supplied with whatever medicine they need at slight cost at the drug stores. Morphine which the peddler sells for a dollar a grain would be supplied, of pure quality, for 2 or 3 cents a grain. The peddler, unable to meet such a price, would go out of business—the illicit narcotic drug industry, the billion dollar racket, would automatically cease to exist.

That much may be stated with absolute certainty. Almost as certain is it that the army of narcotics derelicts would be reduced to the vanishing point. Courts would cease to be crowded with delinquents who owe their downfall to the necessity of meeting the dope peddlers' exorbitant demands. Jails would be emptied; federal prisons would lose a quarter or a third of their population. The billion dollar—or two and three-quarter billion dollar—tax on the public would be eliminated.

Why should there be any argument against permitting the law to operate, since such beneficent results seem inevitable? Here we come to the crux of the matter. The opposition comes from a small coterie of persons in authority, who are in position to benefit by the status quo. These persons will be brought into the open by such a congressional investigation as this bill proposes. There will then be opportunity to subject to official scrutiny the records of these opponents of law reform.

LET US FIND OUT THE CAUSE OF THIS SITUATION

Specifically, there will be opportunity to question the Commissioner of Narcotics—and to observe how he may endeavor to justify the activities that cost the American people not far from $3,000,000,000 a year, and give the Commissioner himself status as the costliest man in the world.

It seemed necessary to make these general comments, if for no other reason, to explain why this bill (H. J. Res. 642) proposes to entrust the investigation and survey of the narcotics situation to the Surgeon-General of the United States Public Health Service, and not to the Bureau of Narcotics.

THE HARRISON LAW AS INTERPRETED

The Harrison Special Tax Act of 1914 required all handlers of narcotic drugs, opium and coca leaves and their products and preparations to register with the Commissioner of Internal Revenue, and pay an annual tax of $1. Narcotic drugs could be transferred only on presentation of a signed order form issued by the Commissioner of Internal Revenue; but, physicians, dentists, and veterinary surgeons were exempt from this requirement, and druggists could issue narcotics on the prescriptions of these exempt professional persons; provided only that the prescriptions were issued for legitimate patients, "in the course of professional practice only." The writers of prescriptions were to keep duplicates or copies in their offices; and the original prescriptions, after being filled, were to be kept for two years on file at the pharmacy. No record need be kept by the practitioners of narcotic drugs directly administered to patients whom they professionally attended.

That is all. There is no mention of the uses of narcotic drugs; no reference to addiction or any other malady or condition, and no suggestion as to meaning or interpretation of the words "legitimate," "patient," or "professional practice." Nor is there the slightest hint as to the qualifications that render any person eligible to register as a physician, dentist, veterinary surgeon, or pharmacist. Presumably the lawmakers fully understood that professional eligibility to handle drugs is a matter for state supervision and control, and one over which federal law has no jurisdiction. It is not even specifically stated that a physician may use his own prescription blanks; it is merely stated that he is not required to use the printed order forms issued by the Commissioner of Internal Revenue, which all other handlers of the drugs must use.

LATER CHANGES IN LAW AS INTERPRETED

Subsequent amendments (1919 and 1926) modified the annual head tax (establishing a graded scale ranging from $24 to $3, and then shifting the minimum—for physicians—back to $1), and provided for a stamp tax of 1 cent an ounce; no drugs to be dispensed to the ultimate consumer except "in or from" a package bearing the revenue stamp. But the amendments did not otherwise concern the pharmacist or the physician, which is equivalent to saying that the Harrison Act, in its relation to the professional activities of the persons who alone are authorized to dispense narcotic drugs to the consumer, remains absolutely unmodified since its enactment in 1914. Any changes in operation of the law have not been due to legislative action, but to judicial or bureaucratic interpretation. These changes have been so notable, however, that the net result has been, as to every essential, diametrically opposed to what the proponents of the act planned and hoped for.

FACTS OF NARCOTICS PROBLEM ARE DISQUIETING

For example, (1) direct revenues have decreased instead of increasing, and an indirect burden of cost has been multiplied a hundredfold; (2) smuggling of narcotic drugs has increased from negligible pounds of smoking opium to scores of tons of morphine and heroin; (3) a negligible group of peddlers of cocaine in prohibition districts has become an army of peddlers of morphine and heroin; (4) a scattered company of drug addicts, a majority of whom were respectable, self-supporting citizens, neither financially nor morally hampered by their infirmity, has become a multitude of derelicts, victims of the dope peddler and the narcotic agent, and denied all medical attention; (5) whereas formerly a considerable number of addicts were cured by sedulous medical treatment, such treatment could no longer be attempted, and every case of addiction became practically hopeless from inception (including large numbers of soldiers returned from the Great War); (6) the dope peddler, whose very existence was due to the law as interpreted, was and is naturally diligent to increase his market so that the addict population has probably doubled, if not tripled, since the Harrison Law was enacted; (7) under stress of necessity, being denied legitimate access to the medicine they require, narcotic addicts as a class become lawbreakers (since every purchase constitutes a felony), and soon the jails and prisons were crowded with narcotic prisoners (in federal prisons alone narcotic cases advanced from none in 1915 to 2,569 in 1925); physicians were so hampered in their use of the most indispensable of medicines that most of them refuse to treat drug addicts even for maladies other than addiction disease, yet, even so, upward of 25,000 physicians have been reported for criminal violation of the Harrison Act, and about 5,000 have been convicted in federal courts, and either heavily fined or imprisoned, the irony of the situation being enhanced by the fact that, with rare exceptions, these convicted physicians had assiduously attempted to conform to the law and to every regulation of the narcotics authorities.

Such have been some of the unpredicted consequences of operation of the Harrison Act, as interpreted. . . .

An Experimental Study of the Behavior of Sulfanilamid.—Fred L. Adair, H. Close Hesseltine, and Lucile R. Hac, Chicago (*Journal of the American Medical Association,* August 27, 1938), determined the elimination of sulfanilamid in certain body fluids (cervical secretion, menstrual fluid and human milk) and its transmission to and its effect on the unborn fetus. Sulfanilamid has been found in the cervical secretion and menstrual fluid, but in amounts so small that its bactericidal action on the gonococcus is questionable. The criterion of cure of gonorrhea should be based, if possible, on cultural studies as well as on smears. Sulfanilamid is excreted in breast milk, both free and as the acetyl derivative. The milk level is considerably above the blood level, and the drug is excreted in the milk for some time after the blood level is negligibly low. With doses of 2 and 4 grams (30 and 60 grains) the total amount excreted was never greater than 1.5 per cent of the amount of the drug administered. It was still being excreted in small amounts seventy-two hours after medication had been discontinued. Sulfanilamid is transmitted to the placenta and fetus of the rabbit and is associated with a marked increase in the mortality of the young. It has also been found in the placenta and cord blood of the human being. Until more is known of the tolerance of the human fetus and of the newborn for sulfanilamid, the drug should be administered only with the utmost caution during pregnancy and the period of lactation. If administered to the mother, breast feeding should be discontinued during the period that sulfanilamid is excreted in the milk.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XI, No. 10, October, 1913

From Some Editorial Notes:

A Considerable Mess.—At the time of writing, no Board of Medical Examiners has been appointed under the "new" and wonderful law. This brilliant piece of legislation calls for the new board to meet and organize on the first Tuesday of September, which was the second day of that month, but as no board has been appointed there has been no organization, no methods of procedure formulated, and nobody knows anything definite as to the status of medical licensure in California. Of the old board, nine members have not resigned, and it may be presumed that they are still members of "a" Board of Medical Examiners; but under which law? What is the medical law of this state? Is it the old law or the new law? Why has the Governor failed to appoint a new board to administer his new law? . . .

* * *

Labor and "Patent Medicines."—With the statement that it is "From the *United Labor Journal,* March 1, 1913," comes a reprint of a short article, "Patent Medicines Proven Good." *"United Labor"* certainly is a traitor to the best interests of the laboring man, for it is just that class—the poor and the very moderately well-to-do laboring class—that make rich the patent medicine manufacturers. What sort of an influence can such a paragraph as the following have upon the not-too-well-able to think laboring man who might better spend his few dollars for more air or food than for an expensive mixture of alcohol and coloring matter and some worthless vegetable stuff of evil taste:

"If the records could be compiled, that is to say, were figures available for such records, it would be shown that patent medicines are the greatest safeguards to the health of the nation, and that they do more to stave off sickness and prevent epidemic than any other element brought out of the chaos of experiments by science." . . .

* * *

Is the Clinical Congress an Unmixed Blessing?—Next month there will be held in Chicago another of the huge clinical congresses of surgery, and undoubtedly the attendance will be large, not an inconsiderable percentage of those attending coming from the smaller cities and towns. Are these "clinical congresses" altogether an unmixed blessing and wholly desirable? Is there not a considerable element of danger? Many very able and skillful surgeons will perform remarkably delicate operations in a manner and with an ease that are totally deceptive; it looks very easy to do some particular thing when one watches an expert with apparently no effort and with a rapidity that still further adds to the illusion, perform an operation. Will not many a man who lacks ability to handle his fingers, to say nothing of the mechanical brain behind them, go home and try to do that same piece of work that looked so easy when he saw it done by the expert at the "congress"? There is a tremendous gap between the ability of the expert and that of the average man, and we must remember that in our work it is not merely some material and time wasted in a failure—it is life or health, and these cannot be lightly considered.

* * *

Plague in Squirrels; and Rabies.—The *Wisconsin Medical* Journal refers to "the quiet, persistent fight which is being made to protect us all from plague" by fighting the infected ground squirrels here in California. Indeed, so quietly does the work go on and so long is it since anything has been heard of it, that even we here in the state have almost come to forget that it is going on. And truly

(Continued in Front Advertising Section, Page 15)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association work some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News

"County Boards of Supervisors have no legal right to contract with private physicians to care for the indigent sick at fixed fees, Attorney-General U. S. Webb ruled yesterday. Webb agreed with District Attorney Earl Redwine of Riverside County that, under the State Political Code, such care for the sick must be administered in hospitals and institutions." (San Francisco *Chronicle,* September 11, 1938.)

"The State Supreme Court yesterday upheld the health service plan of San Francisco Municipal employees, and, in a companion decision, had warm words to say for group medicine. . . . In passing, the court referred to the San Francisco plan as a good example of how group medical care can successfully be obtained. Of the argument that the system is unconstitutional because it compels deduction from employees' pay, the court said: 'No one has a vested interest in public employment except under terms fixed by law. One of the terms of employment in this case is a provision for the health service plan.' Justice Douglas L. Edmonds, dissenting, called the plan 'simply social health insurance for a restricted number of individuals who are compelled to participate.' The health insurance plan was authorized by the voters last year. Under its terms, $2.50 a month is deducted from the pay of eleven thousand city employees, additional sums for dependents. High-salaried officials and employees with religious objections are exempted. All others must participate. The monthly payment entitles participants to medical care from any physician on the health board's panel under the general supervision of Dr. Walter B. Coffey, Medical Director for the Board. Any physician may join the panel upon agreement to accept fixed fees for various medical services established by the Board. . . . In a companion decision the court, by a four to three vote, upheld a lower court decision, barring the Pacific Health Corporation, a western health insurance concern, from selling health contracts, on the ground that such action constituted illegal practice of medicine. The court majority went on to say: 'It is possible to bring medical care to vast numbers of people who now can ill afford it by some means which will protect both the medical profession and the public from the evils of corporate control. The future of group medicine would seem to lie either in well-considered plans adopted by proper legislative authorities or in a carefully regulated statute setting forth the means by which private organizations may offer such services.' Justice Edmonds, likewise, dissented from this decision, a dissent in which Chief Justice William H. Waste and Justice Frederick W. Houser concurred. Said Justice Edmonds: 'I find nothing in the Medical Practice Act which prohibits a corporation from hiring reputable licensed physicians to care for employees or members.'" (San Francisco *Examiner,* September 3, 1938.)

"The State Board of Education is to be defendant in a test case to determine whether osteopaths may act as school doctors. . . . Plaintiff is Edward William Jordt, Mendocino County osteopath, who seeks a writ of mandate to require the Board of Education to grant him a certificate to serve as a school doctor. Jordt claims he is entitled to hold a health and development credential from the State Board. The denial of the issuance of the credential was made on May 27 by the Board on the basis Jordt did not hold a certificate to practice as a physician and surgeon from the State Board of Medical Examiners." (San Bernardino *Sun,* August 6, 1938.)

(Continued in Front Advertising Section, Page 19)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

ONLY THESE SOLUTIONS ARE VACOLITER PROTECTED



B A X T E R ' S

INTRAVENOUS SOLUTIONS IN VACOLITERS

"S.O.D."—Sterile on Delivery (and they remain sterile until you use them)

Baxter's Intravenous Solutions are made sterile . . . stable . . . safe . . . They pass a score of tests and examinations. You ask three important things of solutions:—that they must be just right when they come to the receiving entrance of your hospital . . . that they stay right on your storage shelves . . . that *when you are ready to use them* you can count on their being as pure, as sterile, as fine . . . as the day they were made.

So that you may have this very assurance, Baxter's Dextrose and Saline Solutions are packed in the Vacoliter. They are protected by a metal closure, sealed air-tight against deterioration, contamination. This metal seal is tamper proof. A glance tells you when the seal is intact, that the solution has never been exposed to impurities . . . because to open a Vacoliter you must *destroy* the seal. Protection like this is not expensive . . . yet it assures you of the important requisites in any intravenous solution: sterility and convenience.

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Manufacturers Asked to Submit List of Coal-Tar Dyes Used in Cosmetics.—Coal-tar dyes used in the manufacture of cosmetics, drugs and foods, must be certified by the United States Department of Agriculture under the new Food, Drug and Cosmetic Act. So that cosmetic manufacturers may not be handicapped by a lack of certified dyes when the new law becomes effective next June 25, the Food and Drug Administration is expanding the existing food color certification plan to include coal-tar colors intended for use in drugs and cosmetics.

In a letter sent today to the manufacturers of coal-tar dyes, W. G. Campbell, Chief of the Administration, said: "It is imperative that a complete list of the coal-tar colors now furnished cosmetic manufacturers be submitted to the Administration immediately."

Because it is possible that all colors used by the cosmetic industry cannot be certified in the limited time available before the new law becomes effective, the Administration chief suggests that colors be listed in the order of their importance to the industry and that the use to which the color is put—such as lipstick, rouge, or nail enamel—be indicated.

"It should be stated whether the importance of the dyes is due to the large quantity produced," said Mr. Campbell, "or, if produced in relatively small amounts, whether it is vitally needed by the industry. If you manufacture coal-tar colors for use in medicinal preparations, a list of these colors also is desired."

Campaign Against Blindness.—To facilitate the exchange of information throughout the world in the organized campaign for the prevention of blindness and the conservation of vision, a quarterly publication, *The Journal of Social Ophthalmology,* is now being published by the International Association for Prevention of Blindness. Articles appear in both English and French. The Association's headquarters are at 66, Boulevard St. Michel, Paris, and the American office is located at 50 West Fiftieth Street, New York City. Lewis H. Carris is the American Correspondent.

"Blindness is one of the worst, perhaps the worst, of the physical disabilities," it is pointed out in an introductory statement in the first issue of *The Journal of Social Ophthalmology.* "Much of the joy of life is lost to the blind; and the economic loss that follows blindness is serious. Few blind persons can compete on equal terms with the sighted."

In a statement signed by the Executive Committee of the International Association for Prevention of Blindness, it is recalled that Dr. Park Lewis of Buffalo, New York, was the moving spirit in the founding of the Association in 1929. Dr. Park Lewis is vice-president of both the American National Society for the Prevention of Blindness and the International Association.

Writing on "The Social Aspect of the Prevention of Blindness," Dr. Park Lewis emphasizes that the movement for the protection of eyesight is not confined to eye physicians. "Although it is a movement that can be initiated only by ophthalmologists by whom the facts concerning it are known," says Dr. Park Lewis, "it can be effectively carried forward only by the combined efforts of the medical profession, of sanitarians, and of society generally, with the coöperation of the various governments."

Second Announcement of the United States Pharmacopœia Anti-Anemia Preparations Advisory Board.—The second announcement of the United States Pharmacopœia Anti-Anemia Preparations Advisory Board of the Committee of Revision of the Pharmacopœia of the United State of America, 1930–1940, sets forth two very important decisions of the Board concerning limitations on concentration and also concerning the addition of other substances to liver extracts. . . .

Limit of Concentration for Injectable Liver Extracts.—The Anti-Anemia Preparations Advisory Board of the

(Continued on Page 37)

In Depressive States

In depressive states, the suitability of 'Benzedrine Sulfate' (amphetamine sulfate, S.K.F.), as well as its correct dosage, must be determined for the individual patient.

Tentative classifications, however, suggest that 'Benzedrine Sulfate' is most likely to be of use in conditions characterized by diminution of capacity for activity, and that it is apt to be contraindicated in anxiety states accompanied by agitation. In depressive psychopathic states the patient should be institutionalized during the administration of 'Benzedrine Sulfate'.

Initial dosage should be small, ranging from a minimum of 2.5 mg. (¼ tablet) to 5 mg. (½ tablet). These should be regarded as test doses, and if no effect is obtained from the smallest amount given, the dosage may be progressively increased until a definite effect manifests itself. Usually it is unnecessary to give more than 10 mg. at a single dose. Careful medical supervision during this test period is particularly desirable.

When the correct dosage has been determined, it may be given two or three times a day, bearing in mind that administration in the late afternoon or evening may interfere with sleep. When divided doses are required, the specially grooved tablet may be broken and one-half or one-quarter tablet given.

The effects of 'Benzedrine Sulfate', whether desirable or undesirable, are usually apparent with the first few doses. If there are undesirable effects 'Benzedrine Sulfate' obviously should be discontinued.

Benzedrine Sulfate Tablets

ACCEPTED AMERICAN MEDICAL ASSN Council on Pharmacy and Chemistry

Each 'Benzedrine Sulfate Tablet' contains amphetamine sulfate, 10 mg. (approximately ⅙ gr.)

The Council on Pharmacy and Chemistry of the A. M. A. has adopted amphetamine as the descriptive name for α-methylphenethylamine, the substance formerly known as benzyl methyl carbinamine. 'Benzedrine' is S.K.F.'s trademark for their brand of amphetamine.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

Established 1841

In the past a frequent complaint from mothers was the expense incurred when the large bottle of antiricketic was accidentally upset.



OLEUM PERCOMORPHUM

Even if the bottle of Oleum Percomorphum is accidentally tipped over, there is no loss of precious oil nor damage to clothing and furnishings. The unique Mead's Vacap-Dropper* is a tight seal which remains attached to the bottle, even while the antiricketic is being measured out. Mead's Vacap-Dropper offers these extra advantages also, at no increase in price:

Unbreakable

Mead's Vacap-Dropper will not break even when bottle is tipped over or dropped. No glass dropper to become rough or serrated.

No "messiness"

Mead's Vacap-Dropper protects against dust and rancidity. (Rancidity reduces vitamin potency.) Surface of oil need never be exposed to light and dust. This dropper cannot roll about and collect bacteria.

Accurate

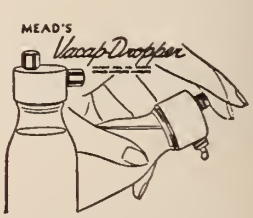
This unique device, after the patient becomes accustomed to using it, delivers drops of uniform size.

No deterioration

Made of bakelite, Mead's Vacap-Dropper is impervious to oil. No chance of oil rising into rubber bulb, as with ordinary droppers, and deteriorating both oil and rubber. No glass or bulb to become separated while in use.

How to Use MEAD'S *Vacap-Dropper*

Remove both top and side caps. Wipe dropper tip. Regulate rate of flow by using finger to control entrance of air through top opening (see below). Oleum Percomorphum is best measured into the child's tomato juice. This is just as convenient and much safer than dropping the oil directly into the baby's mouth, a practice which may provoke a coughing spasm.



U. S. Pat. Nos. 2105023 and 101575.

Supplied only on the 50 c.c. size; the 10 c.c. size is still supplied with the ordinary type of dropper.

OLEUM PERCOMORPHUM

More Economical Now Than Ever

MEAD JOHNSON & CO., Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons.



The *New* THOMAS COLLAR

Designed to give maximum support and control with a minimum of bulk and weight. Made of duralumin. Places of contact are fully padded with soft, wool felt. Collar is constructed to take care of the amount of control needed. Can be reshaped by physician to fit the individual. Carried in stock assuring immediate delivery. Prices reasonable.

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(Continued from Page 34)

United States Pharmacopœia will not, for the present, assign to any preparations of injectable liver extract a strength greater than 15 units per cubic centimeter because of the possibility of loss of unknown factors of value in the treatment of patients with pernicious anemia during the concentration process.

Action Concerning Mixtures of Other Substances with Liver Extracts.—Until evidence has been accumulated to show that substances combined with liver extract do not change its potency or cause deterioration, unitage will not be assigned to mixtures of liver extract with other substances. When a Pharmacopœia preparation of liver or stomach is mixed with other preparation, the Board will not define the preparation as containing liver extract or stomach equivalent to a certain number of United States Pharmacopœia units, unless the potency of the final mixture as such has been established by appropriate clinical tests.

Caution.—It is desirable to establish by preliminary observations on patients with relatively high red blood cell counts, the approximate potency of any new product before making final observations on patients with lower levels of red blood cells, in order to determine the amount constituting a unit. . . .

Evaluation of Drugs Commonly Employed as Diagnostic Aids in Clinical Medicine.—Many of the drugs used for determining the abnormal structure or function of an organ are administered by a technical assistant and, through popular usage, have come to be looked on merely as playing a rôle in a laboratory procedure. According to Stacy R. Mettier and Chauncey D. Leake, San Francisco (*Journal of the American Medical Association*, September 10, 1938), drugs so used, therefore, have tended to lose their identity in the minds of physicians as substances capable of inciting specific tissue and cellular activity. Although much has been added to the knowledge of patho-

(Continued on Page 39)



Aids Digestion of Starches

Excessive amounts of starchy foods in the child's diet may cause digestive disturbances. COCOMALT'S malted diastase helps to convert starches and aids digestion.

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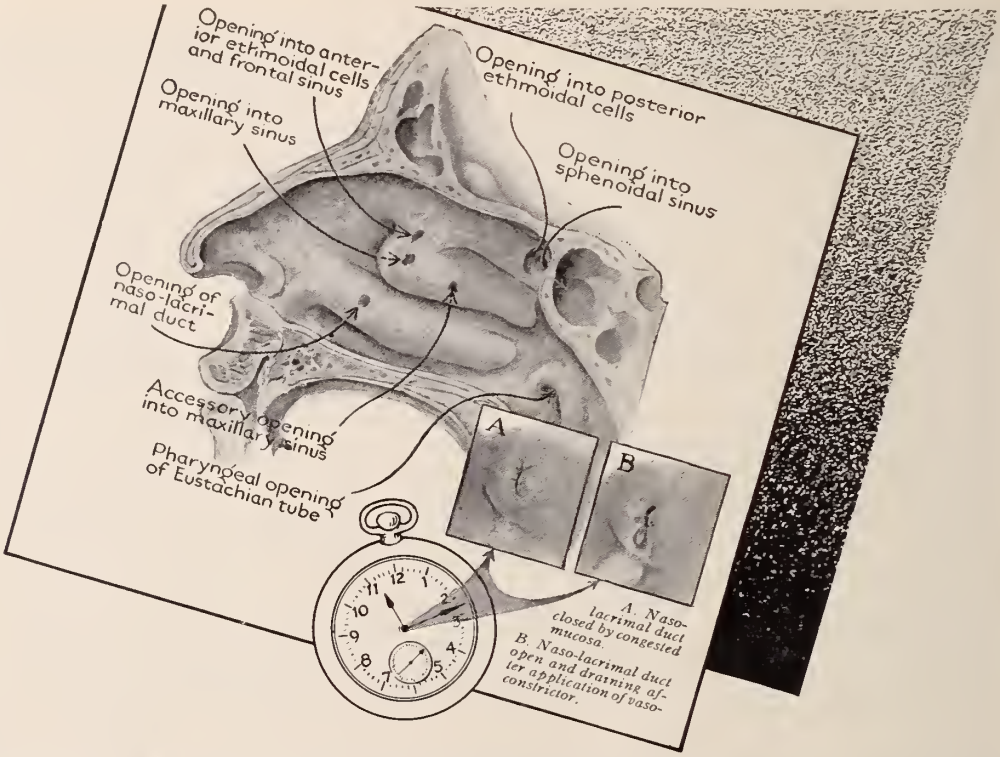
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(Continued from Page 37)

logic physiology by their clinical application, their use is not without danger. The use of a chemical in diagnosis is not justifiable if its possible toxicity outweighs the value of the information which may be derived. The chief drugs used for diagnostic purposes are thoroughly described in New and Nonofficial Remedies. Particular care is taken by the Council on Pharmacy and Chemistry of the American Medical Association to call attention to toxic symptoms or untoward effects from the use of these drugs. Drugs for specific diagnostic purposes may be classified according to the body systems to be examined or according to the application of action. The Council on Pharmacy and Chemistry has issued a comprehensive report on the history, scope and limitations of iodized oils for roentgenographic visualization of body cavities. This report should be studied by physicians contemplating the use of these agents for the first time. Using gaseous agents for providing contrast in the roentgenologic examination of the ventricles of the brain is a hazardous procedure. Cannon's x-ray investigation of intestinal motility led to the introduction of barium sulfate, which remains closer to ideal specifications for the purpose than is the case with any other diagnostic agent. Giving full efficiency, it is practically free from untoward effects, is not absorbed unless there is ulceration, is easily administered, and is not expensive. Similar satisfaction cannot be expressed with the drugs used to promote gastric secretion for analysis. Neither alcohol nor histamin is as safe or efficient as may be desired. Drugs used to determine the excretory function of the liver are limited almost entirely to a few dyes whose value lies in the ability of the liver to remove them from the blood stream into the bile. The two most commonly used dyes, rose bengal and bromsulphalein, when retained in the blood plasma, may be visualized and measured quantitatively by colorimetric methods. There are many conflicting statements in the medical literature relative to the value of drugs used to determine the excretory function of the kidneys. The test most commonly depends on the ability of the kidneys to remove the dye phenolsulfonphthalein from the blood stream over a period of two hours. There is little doubt that the failure of the kidneys to remove the dye gives evidence of their impaired function, but there is considerable doubt as to the value of a single test in determining prognosis. Food substances, when used for the purpose of testing a metabolic function of an organ, may in a restricted sense be considered as acting similarly to chemicals or drugs. Similar to the dextrose tolerance test, the galactose tolerance test may be of aid during the period of maximal damage to the liver cells. However, on account of the high degree of reparative power of the liver, variations in the metabolic function may be expected to occur. The newly formed cells may participate in metabolism of glycogen and aid in maintaining a normal level of blood sugar. Therefore, a test showing a normal reaction does not always exclude injury to the liver cells. Many drugs can be used for roentgenologic examination of hepatic and cholecystic excretion and visualization of the gall-bladder. For cholecystography rose bengal might be used if the required concentration were not toxic, and the bromiodophenolphthaleins might be studied. But practically only two tetra-iodo derivatives are used, soluble iodophthalein U. S. P. and phentetiothalein sodium N. N. R. For roentgenography of the urinary tract, the Council has approved four of the many proposed drugs for infusion in New and Nonofficial Remedies; diodrast, hippuran, neo-iopax, and skiodan. For urography, diodrast N. N. R. has become very popular, probably because the relatively small amount necessary to give the required concentration for effectiveness reduces the cost in comparison with similar agents. But untoward reactions occur only too frequently. Zwick's extensive survey of compounds suitable for urography led finally to a choice of sodium orthoiodohippurate (hippuran N. N. R.) as the one closest to the ideal. It is less toxic than other similar agents, and may even be administered orally. Neo-iopax N. N. R., a di-iodopyrodin derivative like diodrast, produces local irritation and other reactions at the site of injection. It pro-

(Continued on Next Page)

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(Continued from Preceding Page)

duces untoward systemic effects similar to diodrast. Among the general physiologic actions of drugs which the wise physician will consider in using drugs for diagnostic purposes are local actions at the point of administration, relative rates of absorption and excretion, the fate of the chemical in the body and its mode of excretion, possible systemic reactions and untoward effects, and the relation of dosage to these effects.

Mediastinal Infection from Esophageal Perforation. Charles E. Phillips, Los Angeles (*Journal of the American Medical Association,* September 10, 1938), presents a series of twenty cases of mediastinal infection from esophageal perforation. There were three deaths, all of which under different circumstances might have been prevented. The anatomy with which this condition is particularly concerned is discussed. The diagnosis of mediastinal infection from esophageal perforation must be made promptly, and the abscess accurately localized to assure success in treatment. The diagnosis is made on the following points: (1) There is a history of injury following the ingestion of some sharp substance or of perforation during instrumentation. (2) Immediate symptoms of pain, tenderness, and dysphagia are followed by fever, swelling and subcutaneous emphysema. (3) X-ray examination may show a foreign body, emphysema or irregularities of the tissues after the ingestion of an opaque meal. (4) Endoscopic examination may show gross perforations and suggestive irregularities or perforating foreign bodies. The mechanism of infection is varied: It may slowly perforate an injured mucosa and later reach the mediastinum. A virulent infection with a minimum of trauma may set up active mediastinitis. A minute perforation may remain walled off from the mediastinum until the opening into the esophagus closes and then a fulminating mediastinitis result. A wide opening in the mediastinum leads to rapidly spreading emphysema and mediastinitis. None of the twenty patients treated within the first twenty-four hours after perforation died of infection. Serious secondary hemorrhage occurred in two patients; one recovered and the other died. The thoracic duct of one patient was injured but recovery ensued. The second death resulted from a double pneumothorax. The third death was a result of infection. The patient refused operation until two days had elapsed after perforation, and he died of spreading infection. Surgical treatment has for its objectives: localization of the lesion, surgical approach and evacuation of the abscess, release of pressure, sterilization of the abscess cavity by diluted solution of sodium hypochlorite and continued disinfection until healing is complete. Infection in the retropharyngeal and superior mediastinal spaces is treated by a surgical approach through an incision along the anterior border of the sternocleidomastoid muscle. The muscles are separated, and the lower pole of the thyroid is elevated. The normal expansion and contraction of the esophagus in swallowing represents the amount of available space that can be utilized. The space will accommodate about three Dakin tubes on each side of the esophagus without undue pressure on the pleura. The Dakin tubes, with lateral openings, are inserted into the superior mediastinum. The motion of the mediastinal structures forces out the solution soon after it is injected and disinfection of the mediastinum is effected. The irrigation should be done every two hours until the infection subsides. Thereafter it is repeated twice daily as the tubes are gradually removed. By a gradual shortening of the tubes, the mediastinal cavity is made to close from the bottom. The average acute mediastinitis clears up within ten days or two weeks and is healed completely in another week. When the infection is in the posterior mediastinum the surgical attack should be made from the dorsum. After localization of the perforation, the resection of two inches of the posterior end of two ribs below the point of perforation and displacement of the pleura outward will afford access to the posterior mediastinum. When the barium sulfate used for the visualization of the perforation is encountered, the



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Dakin tubes are placed and the wound closed to the tubes. In all cases of mediastinitis a feeding tube is passed through the nose and down the esophagus. It is left *in situ* until the esophagus is healed. Usually it can be discarded at the end of ten days, provided no further leakage takes place through the perforation.

Sulfanilamid and Serum in Treatment and Prophylaxis of Scarlet Fever.—Wallace Sako, P. F. Dwan, and E. S. Platou, Minneapolis (*Journal of the American Medical Association,* September 10, 1938), compare a series of one hundred scarlet fever patients treated with sulfanilamid during 1937-1938 with an equal number of controls who did not receive the drug. The two series, although not composed of alternate cases, ran concurrently and were comparable with respect to age, severity, and duration of disease prior to treatment. The drug was administered orally except to patients with nausea or extreme toxemia. The latter were given an initial large dose subcutaneously in the form of one per cent solution in physiologic solution of sodium chlorid. The dosage used was an initial massive dose of 0.05 gram per pound of body weight and a maintenance dose of 0.03 gram per pound in twenty-four hours. With the exception of the development of leukopenia in two cases and a fever and rash in two additional cases, no serious complications were encountered with the drug. Cyanosis without sulfhemoglobinemia was observed in several instances, but therapy was continued without any ill effects. The dosage was gradually decreased, but was continued on an average of twelve days. The best results were obtained when sulfanilamid was continued during the entire convalescent period. The fever curve in the treated cases, once it became normal, remained so in practically all cases without complications, whereas the untreated cases showed irregular rise in temperature, often without demonstrable explanation for this rise. The incidence of complications was 41 per cent in the controls as compared to 8 per cent in the treated cases. There were nine suppurative conditions in the control cases as compared to one in the treated series. In the treated cases the rate of recovery from the acute toxemic phase of the disease (six days) was no more rapid than it was in the control cases (six days). The patients treated with sulfanilamid did not show the prompt subsidence of toxic symptoms such as was observed following the administration of serum. Twenty cubic centimeters of pooled human convalescent serum failed to prevent the streptococcic invasion of scarlet fever in five of ten boys who were intimately exposed to it, whereas the five who received additional chemoprophylaxis did not contract the disease. Commercial antitoxin has failed to protect several persons against the streptococcic invasion of scarlet fever. Early massive intravenous serum therapy to combat toxemia combined with continued large doses of sulfanilamid seems to be the most efficacious treatment for scarlet fever.

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Physical Therapy in Treatment of Fractures.—In order that physical therapy may be intelligently used in the treatment of fractures, Frank D. Dickson, Kansas City, Missouri (*Journal of the American Medical Association*, September 10, 1938), defines its purposes and aims to be: (1) promoting the early absorption of hemorrhage and traumatic exudate, (2) relaxation of muscular spasm to relieve pain and discomfort, (3) the reëstablishment of normal circulatory conditions in the affected extremity, blood stream and lymphatics, which insure a more rapid and complete healing of the fracture, and (4) building up in the muscles of the extremity that tone and flexibility so necessary to normal use. Broadly speaking, there are four basic forms of physical therapy which may be employed in the treatment of fractures to accomplish the purposes catalogued; they are heat, massage, exercise and muscular stimulation. The first two of these secure their effect by bringing about muscular and vascular relaxation; the third and fourth are of chief importance in promoting venous and lymphatic flow and preparing the muscles to resume their normal active rôle as soon as use may be safely permitted. Physical therapy plays but a minor rôle in the reduction period. However, when for any reason it is impossible to proceed with the immediate reduction of a fracture, even if the delay is but a few hours, heat and gentle massage may be used to advantage. In the postreduction period, physical therapy should assume an important rôle in fracture treatment, but, unfortunately, it is during this period that it is most neglected. It is in the immediate postreduction period that exudate and hemorrhage which will become organized into scar tissue about the muscles, tendons, vessels and nerves, and interfere with muscle action, normal circulation and joint movement can largely be removed by restoring as early as possible normal circulatory efficiency to the part. The stiffness, soreness, and impaired function following a fracture are due in large part to such scar tissue, and its removal, or at least reduction to a minimum, lessens the discomfort incident to restoring function and materially shortens the period of convalescence. De-

(Continued on Page 45)



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layed union and nonunion are, in the main, traceable to interference with circulation at the site of the fracture, so that early restoration of circulatory efficiency is the best safeguard against these catastrophes. So-called open splinting has in recent years been used more and more in the fixation of fractures; this permits the employment of physical therapy to a satisfactory extent. If a circular plaster dressing is used, it may be bivalved and the halves removed alternately for the application of physical therapy. In addition to "setting" muscles in this postreduction period, active muscle contraction may be encouraged in several ways. Even with the forearm and arm encased in a plaster cast, if the fingers are free, the patient by squeezing and relaxing the grip on a rubber sponge can exercise the forearm and arm muscles extensively. It is in the period of after-care that physical therapy is most generally used in fracture treatment. In seeking to help a patient to regain voluntary control of the muscles and joints following a fracture, heat and massage should be used to loosen up and render more pliable muscles and so reduce the stiffness and pain incident to attempts at movement. The movements which are used should be designed to bring about normal action of the joint in the most natural manner. Having the patient go through the motions of brushing the hair in elbow fractures, driving nails with a light hammer in fractures of the wrist, turning a door handle in fractures of the forearm, and reaching for objects placed at a gradually increased height in shoulder fractures, illustrate the methods which may be used to encourage the patient to use the extremity in a normal manner. Physical measures may be used up to the point of pain tolerance, provided the painful reaction subsides within an hour or two. Physical therapy which produces painful reaction and muscular spasm that persist until the next treatment indicates too forceful or too prolonged treatment, and both amount and duration must be reduced; persistence can lead only to resistance on the part of the patient, slowing up of recovery, and a disappointing result.

Disease of Biliary Tract Associated with Disturbances in Cholesterol Metabolism.—John Russell Twiss and James H. Barnard, New York (*Journal of the American Association*, September 10, 1938), treated 110 medical and surgical patients with disease of the gall-bladder and associated hypercholesteremia with a low cholesterol diet. A control series of thirty-five patients did not receive this diet. Of eighty medical patients 82 per cent showed an appreciable reduction in blood cholesterol; 80 per cent were symptomatically improved. Fifty per cent of the control group showed an inconsequential reduction of blood cholesterol; 33 per cent were symptomatically improved. Of the thirty surgical patients treated with the low cholesterol diet after cholecystectomy, 67 per cent showed an average reduction in blood cholesterol of 24 per cent; 79 per cent were symptomatically improved. In the control group 65 per cent of the patients showed an average reduction in blood cholesterol of 5 per cent and 64 per cent showed symptomatic improvement. Of the surgical patients who had symptoms after cholecystectomy and were treated with the low cholesterol diet, 10 per cent of those showing a reduction in blood cholesterol were unimproved. In the control group 40 per cent were unimproved. Minimal readings of the blood cholesterol were obtained within the first eight months for 93 per cent of the medical patients on the low cholesterol diet, whereas after cholecystectomy minimal figures were obtained only after eight months for 50 per cent of the patients. Twelve patients with gall-bladder disease who had a normal value for blood cholesterol preoperatively had hypercholesteremia after cholecystectomy.

True Auricular Fibrillation Compared with Muscle Tremors of Poliomyelitis.—Two cases, illustrating comparative analyses, are reported by James E. Carroll, Hartford, Connecticut (*Journal A. M. A.*, September 10, 1938), to show the apparent similar electrocardiographic tracings in two divergent clinical manifestations such as (1) auricu-

(Continued on Page 47)

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(Continued from Page 45)

lar fibrillation and (2) poliomyelitis with subjective somatic tremors simulating auricular fibrillation. The evidence present in the case of poliomyelitis tends to establish the fact that, apart from the fibrillation episode, the heart is normal. The associated clinical pathologic conditions found in true auricular fibrillation were not found in this particular poliomyelitis patient. In leads 2 and 3 there was an absence of a P wave preceding each ventricular wave. These notchings complicated correct interpretation. They simulated auricular fibrillation. Proof was established that the twitchings or notchings were not true auricular fibrillation or auricular flutter. Proof was established that the notchings were of somatic origin and located in the left leg. The electrocardiograph did not have anything to do with the production of these intrinsic artefacts. The electrocardiograph by unorthodox placing of electrodes on the body offers a method of detecting subjective tremors aside from an eletrocardiogram.

Some Features of Present-Day Diagnosis.—James B. Herrick, Chicago (*Journal of the American Medical Association,* September 10, 1938), stresses the fact that diagnosis implies the application of more knowledge than any one human being can acquire, remember, or properly utilize. The doctor must then have help which makes qualified laboratories and qualified specialists singly or in groups a necessity. Perspective in diagnosis is important, ill effects may come from being too particular with minute details, yet the practitioner must know of their existence, for minute details may mean much. Teaching students merely the so-called essentials may not only make less efficient practitioners but lower the morale and high standards of productive research. The value of "majoring" for the undergraduate and practitioner is stressed. A too definite distinction between the practitioner and the specialist may lead to the development of a deadening inferiority complex in the one type of worker and of a superiority complex in the other that will not improve the efficiency of either group and that in the end may have unfortunate results, both in the practice of medicine as an art and in the science of medicine in the way of productive research. Closer relations rather than wider separation should exist between all these groups in the belief that coöperation will be mutually beneficial. These problems will be worked out largely by evolution, by trial and error at the bedside of the patient in the home, and in the teaching hospitals of medical schools. Unless there is now impending or shall later come upon us a second Dark Age in Science when all progress will be a standstill, these problems never will be settled. For medical knowledge is not static, it is in a state of flux; new facts and new generalizations are constantly being established, new social and economic theories and practices are being advocated and adopted. There will have to be frequent readjustments.

Human Requirements for Vitamin B_1.—For the ideal type of information needed to answer the question of the human requirement for vitamin B_1 it was, of course, necessary to await isolation of the factor in pure form and tests of it on the human species, something accomplished only recently. It has not as yet been possible to make as many tests with the pure vitamin as might be desired, but these may reasonably be expected in the near future. George R. Cowgill, New Haven, Connecticut (*Journal of the American Association,* September 10, 1938), presents a formula which indicates that the value of the vitamin B_1: calory ratio increases with increase in body weight. Estimates of the human requirement for vitamin B derived from his formula pertain to the minimum or beriberi-preventing level; the optimal intake is undoubtedly much greater. The vitamin B_1 requirements for the normal adult, the mother and the infant and the child are discussed and computed. Heightened metabolism and loss through excretory channels are some of the clinical factors that influence the vitamin B_1 requirement.

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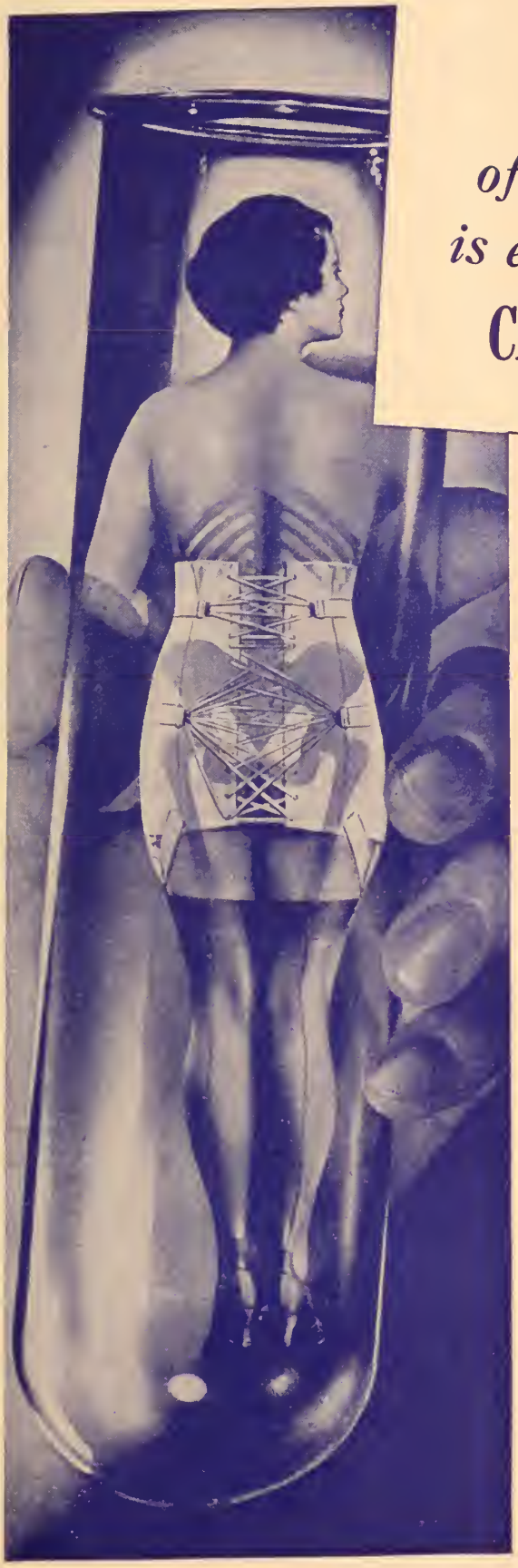
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Therapeutic Effectiveness and Toxicity of Sulfanilamid and Several Related Compounds: Further Clinical Observations.—Edward G. Bannick, Seattle; Alex E. Brown, Rochester, Minnesota, and Frank P. Foster, Montclair, New Jersey (*Journal of the American Medical Association,* August 27, 1938), review the results of the oral administration of two allied sulfanilamid preparations, di-methyl-di-sulfanilamid (di-septal, Uliron, DB90, D373) and neoprontosil (prontosil soluble), in the treatment of infections due to hemolytic streptococci, meningococci, gonococci, and in infections of the urinary tract. A preliminary review also is given of treating chronic ulcerative colitis with similar preparations. They find that sulfanilamid, although apparently possessing therapeutic advantages over di-methyl-di-sulfanilamid and neoprontosil, nevertheless appears to have more of a tendency to produce toxic manifestations. Di-methyl-di-sulfanilamid, because of a tendency to produce peripheral neuritis, is at present contraindicated for general use. Neoprontosil administered orally, while apparently less effective therapeutically than sulfanilamid, seems to be less likely to produce toxic manifestations and, therefore, is of value in some instances, wherein sulfanilamid cannot be satisfactorily given. Sulfanilamid, neoprontosil or di-methyl-di-sulfanilamid has been used in twelve cases of chronic ulcerative colitis. In each case the diagnosis was confirmed by proctoscopic examination. In nine cases the chronic ulcerative colitis was uncomplicated by other disease and in each of these improvement was prompt (four days) and definite. There was a tendency to slight recurrence of symptoms when administration of the drugs was discontinued, but this again was promptly controlled as soon as treatment was resumed. Gradually the interval between courses of treatment was lengthened without resultant recurrence of symptoms, and subsequent proctoscopic examination of four patients has given no evidence of chronic ulcerative colitis. These patients have been observed only for from three weeks to eight months and for this reason the report is only a preliminary one.



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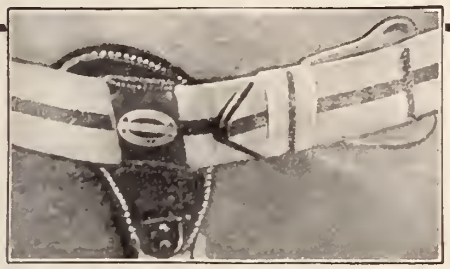
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President, Henry B. Graeser, 115 E. Fifth Street, Holtville.
Secretary, William A. Clarke, Holtville.
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

Kern County Medical Society
President, Harry W. Lange, Hopkins Bldg., Bakersfield.
Secretary, C. S. Compton, 428 C Street, Bakersfield.
Meeting, *Third Thursday, 8:30 p. m.*

Kings County Medical Society
President, P. K. Edmunds, Corcoran.
Secretary, William A. Johnstone, Hanford.
Meeting, *Second Monday, 8 p.m., Legion Hall, Hanford.*

Lassen-Plumas-Modoc County Medical Society
President, C. I. Burnett, Susanville.
Secretary, Fred J. Davis, Jr., Westwood.
Meeting, *On Call.*

Los Angeles County Medical Association
1925 Wilshire Boulevard, Los Angeles
President, Ralph B. Eusden, M. D., 412 Professional Bldg., 117 East 8th St., Long Beach.
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

Marin County Medical Society
President, W. Scott Polland, Albert Building, San Rafael.
Secretary, Carl W. Clark, 510 B Street, San Rafael.
Meeting, *Fourth Thursday, 6:30 p. m., Marin Golf and Country Club.*

Mendocino-Lake County Medical Society
President, Charles A. Craig, Lakeport.
Secretary, Robert B. Smalley, Willits.
Meeting, *On Call.*

Merced County Medical Society
President, E. M. Soderstrom, Merced.
Secretary, Fred O. Lien, Shaffer Bulding, Merced.
Meeting, *Third Thursday, Hotel Tioga, Merced.*

Monterey County Medical Society
President, Curtis B. Gorham, 215 Franklin Street, Monterey.
Secretary, Harold R. Lusignan, 215 Franklin Street, Monterey.
Meeting, *First Thursday.*

Napa County Medical Society
President, Walter Rapaport, Imola.
Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

Orange County Medical Society
President, G. Wendell Olson, 211 No. Pomona St., Fullerton.
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital, Orange.*

Placer County Medical Society
President, C. Ettrick Lewis, 59 Lincoln Ave., Auburn.
Secretary, Robert A. Peers, Colfax.
Meeting, *At Call of President.*

Riverside County Medical Society
President, D. D. Roos, Corona.
Secretary, Thomas A. Card, 3616 Main Street, Riverside.
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

Sacramento Society for Medical Improvement
President, Dave Dozier, California State Life Building, Sacramento.
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

San Benito County Medical Society
President, J. M. O'Donnell, Hollister.
Secretary, L. E. Smith, Hollister.
Meeting, *At Call of President.*

San Bernardino County Medical Society
President, Delbert B. Williams, 401 North Eighth Street, Colton.
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

San Diego County Medical Society
Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, Bryant R. Simpson, 1205 Medico-Dental Building, San Diego.
Secretary, W. H. Newman, Medico-Dental Building, San Diego.
Meeting, *Second Tuesday, El Cortez Hotel.*

San Francisco County Medical Society
2180 Washington Street, San Francisco
President, William C. Voorsanger, 490 Post St., San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

San Joaquin County Medical Society
President, A. C. Boehmer, Box 306, Lodi.
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

San Luis Obispo County Medical Society
President, Frederick R. Mugler, 1170 Marsh Street, San Luis Obispo.
Secretary, E. M. Bingham, County Health Department, San Luis Obispo.
Meeting, *Third Saturday, 6:30 p. m., Mulholland's Grill, San Luis Obispo.*

San Mateo County Medical Society
President, Hartzell H. Ray, 23 Second Avenue, San Mateo.
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

Santa Barbara County Medical Society
President, E. J. Lamb, 1515 State Street, Santa Barbara.
Secretary, J. Jerome Rupp, 101 Mesa Lane, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

Santa Clara County Medical Society
President, E. O. G. Schmitt, 608 Medico Dental Bldg., San Jose.
Secretary, Leslie B. Magoon, Medico-Dental Building, San Jose.
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

Santa Cruz County Medical Society
President, Dean S. Woodard, Stoesser Bldg., Watsonville.
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.
Meeting, *First Monday, 7:30 p. m., Club Rio del Mar, Aptos.*

Shasta County Medical Society
President, Mathew D. Pratt, Fall River Mills.
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Meeting, *Second Monday.*

Siskiyou County Medical Society
President, J. B. McGuire, Mt. Shasta.
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.
Meeting, *Second Sunday.*

Solano County Medical Society
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Secretary, John W. Green, Box 539, Vallejo.
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

Sonoma County Medical Society
President, Alfred A. Thurlow, 505 B St., Santa Rosa.
Secretary, C. M. Carlson, 534 B Street, Santa Rosa.
Meeting, *Second Thursday.*

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Secretary, Hoyt R. Gant, 401 Beaty Building, Modesto.
Meeting, *Second Friday.*

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Meeting, *At Call of President.*

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Meeting, *Sunday Evening once a month.*

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Meeting, *Second Tuesday, Ventura County Country Club.*

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Meeting, *First Tuesday.*

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(Roster lists continued on advertising page 6)

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Sacramento—State Office Building, Tenth and L streets. CApital 2800.
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Death Elixir Maker Fined.—Greeneville, Tenn., Oct. 3 (AP).—Samuel Evans Massengill drew a record fine of $16,800 today after he pleaded guilty to charges growing out of seventy deaths blamed on an elixir of sulfanilamide.

Federal Judge George C. Taylor imposed the penalty after the Bristol (Virginia-Tennessee), drug manufacturer entered a plea of guilty on 112 of 166 counts charging violation of the Pure Food and Drug Act.

The fine represented a $150 penalty on each of the 112 counts and District Attorney James B. Frazier said it was the largest ever imposed under the food and drug law.

Massengill was ordered to pay one-third immediately with the balance to be paid within thirty days. Judge Taylor dismissed the remaining fifty-four counts, but Frazier said sixty-two similar counts were pending in the United States District Court at Kansas City, Missouri.

Frazier said the principal one was "adulteration and misbranding" of an elixir of sulfanilamide manufactured and distributed by the Massengill Manufacturing Company.

The government contended this medicine was a contributing factor in the deaths of more than seventy persons last fall.—Los Angeles *Times*, October 4.

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Sickness puts the pressure on the middle man, and for a number of years some method of relieving that pressure has been sought. Various plans for socialized medicine have been suggested and rejected, and more recently the Federal Government has declared its intention of inaugurating a medical care program, but again the middle man is forgotten, and emphasis placed on persons of the charity class.

However, delegates to a special meeting of the American Medical Association in Chicago have announced themselves as favoring a plan of hospitalization insurance, and from all appearances, this is the most practical scheme yet suggested to provide adequate, yet inexpensive medical care for the average man.

Say the doctors in a convention report: "We approve the principle of hospital service insurance which is being widely adopted throughout the country. We particularly recommend it as a community project. In addition to insurance for hospitalization we believe it is practical to develop cash indemnity insurance plans to cover the costs of emergency or prolonged illness."

Practically every large university in America has its own hospital, and students are given hospitalization insurance for the nominal sum of from $6 to $10 per year.

In communities where the insurance plan has been adopted, it has been found practical for the hospital, itself, to act as sponsor, or for a group of civic minded citizens to set up an agency, complying with state law, to provide such insurance.

In any case, where the plan has been properly presented and carried through, it has been found that for less than $10 per year, several days of hospitalization can be provided, and reduced rates can be given on necessary additional days. For varying amounts up to $25, all members of a family can be included, and all types of sickness cared for.

With the cash indemnity policy added, as suggested by the doctors, the insurance cost can still be kept exceptionally low as compared to possible costs of medical attention without insurance, and the average man, the man in the middle, can assure himself and his family of adequate medical care in case of sickness without having to mortgage his life away to meet the bills.—Shafter *Press*, September 29.

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Safety Department. — The Fourth Annual Western Safety Conference was held in Los Angeles, September 12 to 16, inclusive. Other groups that held their meetings with the conference were the American Association of Motor Vehicle Administrators, Region No. 4, the Motor Vehicle Advisory Committee to California State Assembly, Motor Vehicle Interim Committee, the Traffic Safety Commission of California, the Pacific Railway Club and the Western Aviation Conference, Southern Division. Many other organizations interested in accident prevention joined with the conference to make it the best attended and most interesting meeting since the conference was organized.

Accidents and accident prevention in industry, in the home, on the streets and highways, in public places and the educational means that can be used to reduce the number of accidents and injuries were discussed by those familiar with their respective subjects.

It was necessary that various sessions meet at the same hour. At one time there were twenty-five sections holding meetings. The industrial groups had good attendances and made arrangements for the continuance of the sections at the next conference with interim committees to study and report upon specific reports next year.

The reports presented by the Industrial Interim Committee and prepared by a WPA project were deemed of special value and it was urged that the project be expanded to cover all industries and in greater detail than time had permitted on the reports presented.

The attendance from the various states, territories and provinces was exceedingly good and the spirit of coöperation could not have been better; the principle of uniformity in state safety regulations was approved by all those who entered the discussions.

At the final meeting many of the resolutions presented were approved, all tending to increase the safety of life and limb.

The Fifth Annual Western Safety Conference will be held in Oakland, California, probably in September, 1939. Tucson. Arizona. invited the Conference to meet in that city in 1940.—California Industrial Accident Commission Report.

Lead Tolerance on Fruit Set at .025 Grain Per Pound. Following receipt from the Treasury Department of a statement that investigations by the Public Health Service indicate that the health of consumers will not be endangered by the change, the Secretary of Agriculture has issued notice that the quantity of lead residue permitted on fruits shipped interstate will be raised to 0.025 grain per pound of fruit. The lead tolerance previously enforced under the Food and Drugs Act was 0.018 grain per pound. The tolerances for arsenic and fluorine residue remain unchanged at 0.01 grain per pound.

On September 14 the Treasury Department reported to the Department of Agriculture the findings of the Public Health Service's investigations concluding with the statement:

". . . should the Department of Agriculture place the tolerance for lead at 0.025 grain per pound, there is nothing in their (the Public Health Service's) findings to date to suggest that this increase above the present tolerance would be sufficient to endanger the health of the consumer."

On September 19, the Secretary of Agriculture issued a statement giving the Treasury Department's report and concluding as follows:

"In the light of this advice the department will not institute action under the Food and Drugs Act against fruit containing 0.025 grain per pound of lead, or less."

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BOOKS RECEIVED

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Practical Microbiology and Public Health. For Students of Medicine, Public Health, and General Bacteriology. By William Barnard Sharp, S.M., M.D., Ph.D., Professor of Bacteriology and Preventive Medicine in the Medical Department of the University of Texas; Visiting Bacteriologist of John Sealy Hospital, Galveston; Supervisory Bacteriologist of Galveston Health Department. Cloth. Pp. 485, illustrated. Price, $4.50. St. Louis: The C. V. Mosby Company, 1938.

Internal Medicine. Its Theory and Practice in Contributions by American Authors. Edited by John H. Musser, B.S., M.D., F.A.C.P., Professor of Medicine in the Tulane University of Louisiana School of Medicine; Senior Visiting Physician to the Charity Hospital, New Orleans, Louisiana. Third Edition, Thoroughly Revised. Cloth. Pp. 1428, illustrated. Price, $10. Philadelphia: Lea & Febiger, 1938.

Human Pathology. A Textbook. By Howard T. Karsner, M.D., Professor of Pathology, Western Reserve University, Cleveland, Ohio. With an Introduction by Simon Flexner, M.D. Fifth Edition, Revised. Cloth. Pp. 1013, with 18 illustrations in color and 443 in black and white. Price, $10. Philadelphia: J. B. Lippincott Company, 1938.

The Rockefeller Foundation International Health Division Annual Report, 1937. Paper. Pp. 243. New York: 49 West Forty-ninth Street.

Daily Log for Physicians. A Brief, Simple, Accurate Financial Record for the Physician's Desk. Champaign, Illinois: Colwell Publishing Company.

The Practice of Medicine. By Jonathan Campbell Meakins, M.D., LL.D., Professor of Medicine and Director of the Department of Medicine, McGill University; Physician in-Chief, Royal Victoria Hospital, Montreal; Formerly Professor of Therapeutics and Clinical Medicine, University of Edinburgh. Fellow of the Royal Society of Edinburgh; Fellow of the Royal Society of Canada; Fellow of the Royal Society College of Physicians, London; Fellow of the Royal College of Physicians of Edinburgh; Honorary Fellow of the Royal College of Surgeons, Edinburgh; Fellow of the Royal College of Physicians, Canada; Fellow of the American College of Physicians. Second Edition. Cloth. Pp. 1413, with 521 illustrations including forty-three in color. Price, $12.50. St. Louis: The C. V. Mosby Company, 1938.

Urology. By Daniel N. Eisendrath, M.D., Consulting Urologist to the American Hospital, Paris, France; Formerly Attending Urologist, Michael Reese and Cook County Hospitals; Assistant Professor of Surgery (Genito-Urinary) Rush Medical College of the University of Chicago, and Harry C. Rolnick, M.D., Attending Urologist, Michael Reese, Mount Sinai, and Cook County Hospitals, Chicago; Formerly Clinical Professor of Urology, Loyola University Medical School. Cloth. Pp. 1061, with 750 black and white illustrations and twelve in color. Fourth Edition, Entirely Revised and Reset. Price, $10. Philadelphia: J. B. Lippincott Company, 1938.

What's Wrong With Me? By H. Ameroy Hartwell, M.D., Fellow of the American Medical Association, Fellow of the New York Academy of Medicine, Member of the Medical Society of New Jersey, etc. Cloth. Pp. 246. Garden City, New York: Country Life Press, 1938.

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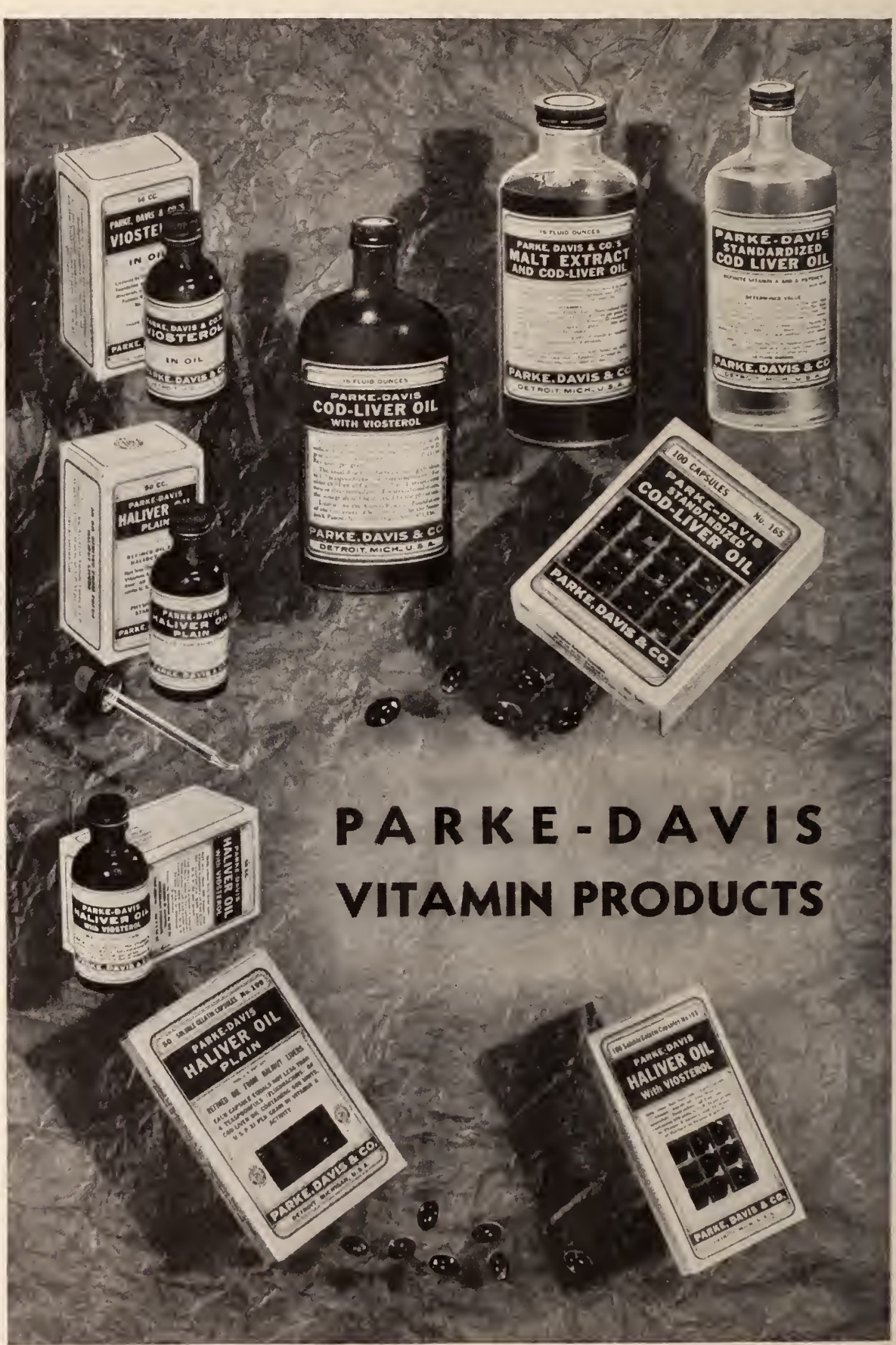
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TWENTY-FIVE YEARS AGO

(Continued from Text Page 424)

tionship, the one with any other, it did not matter much how any particular society conducted its affairs; it might be as businesslike or as slipshod as happened to be the case. Now, however, conditions have changed. Medical societies have taken definite shape and have formed into a definite organization with certain definite purposes. It became evident several years ago that some uniformity in the matter of membership was absolutely necessary. County units composed or made up state societies; they in turn made up the governing body, and more recently the actual membership, of the American Medical Association, and aside from all business considerations, the eternal question was: "When is a member not a member?" And it was a puzzler. Last year the American Medical Association called together the secretaries of state societies to discuss this and other problems, and the meeting was one of the most succcessful on record. Some fundamental conclusions were reached and agreed upon unanimously. All societies should have the fiscal year coincide with the calendar year; all memberships should automatically terminate on December 31 of each year; all members of a previous year who pay their dues within sixty or ninety days of the first of the current year should be considered members as from January 1 of that year, while those who pay after the fixed date (in California it is March 1) should be recorded as members only from the date of payment of dues. . . .

* * *

Damaged Goods — And Folly. — Brieux's great play, "Damaged Goods," that most remarkably play-picture of

(Continued on Next Page)

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TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

the danger to the innocent from syphilitic infection, had quite a run at a New York theater and then went on the road, showing at various of the smaller cities. The power and force of Brieux's plays cannot be ignored by any thinking person and, of them, "Damaged Goods" has the greatest value as an instructive lesson to the layman, more especially to the "female of his species." Two curious incidents are to be noted in this connection. A clergyman in San Francisco wrote an article for a daily paper in which he expressed his profound approval of the play, and of its lesson, but stated that the stage would have to preach such sermons to the public; that he could not do so from the pulpit. Now, that is curiously interesting. Why cannot the pulpit speak the truth concerning syphilis or anything else that is of the utmost importance to the health and the happiness of the congregation? Must the pulpit confine itself to mythical rewards and punishments and ignore material punishments, like syphilis? What is the reason that the minister may not say such things—but the actor may? It would be interesting to know the real reason for the clergyman's statement that his lips are sealed; that he cannot preach such a sermon to his flock. If it is that he has not the words or the thoughts, he might at least read the play to his congregation. The other suggestive incident is that of the ceremonial burning of Brieux's book, "Three Plays," by the members of a certain woman's club in San Francisco, because it was "dirty." How is one to protect people who think it is dirty to show them their danger and how much they need protection? The ostrich burying his head in the sand is a monument of wisdom in comparison to a lot of silly women burning a book that has, for them, of all people, a message of the profoundest importance. If it were not so painfully indicative of hopeless stupidity it would be amusing.

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* * *

Clinical Congress.—Elsewhere in this issue we publish a portion of the program of the congress of surgeons which is to be held in Chicago during the week beginning November 10. We understand that about the same time there is to be the formal launching of "The American College of Surgeons" with the dignified induction into membership of those—or some of those—who have "come through" with the $25. It is rumored, however, that a large number of those surgeons or near-surgeons who thought they were going to be permitted to use the magic letters after their names will be disappointed; they will not be permitted to join the elect—who elect themselves!

From an Original Article on "Value of Pyelography for the Diagnosis of Hydronephrosis" by Martin Krotoszyner,

(Continued on Page 18)

Are You Sure?



In some cases you probably prescribe two to three teaspoons of cod liver oil daily as an antirachitic for infants six months of age or older. . . . But **are you sure** that the baby actually receives the cod liver oil? Do you not find that all too often the mother neglects this daily task, or the baby refuses to take the dosage?

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TWENTY-FIVE YEARS AGO

(Continued from Page 16)

M. D., San Francisco. — The newer urological methods (cystoscopy, ureteral catheterization, the microscopic and functional examination of renal secretions, radiography, etc.), enable us, in the great majority of cases of unilateral renal lesions, to arrive at a definite diagnosis prior to a contemplated operation. In fact with sufficient experience in the application and interpretation of the various diagnostic methods it is, at present, only rarely necessary to resort to exploratory exposure of a diseased kidney as the last and only means of recognizing the character of its pathological lesion. . . .

From an Original Article on "Early Symptoms of Poliomyelitis, with Special Reference to a New Preparalytic Symptom" by John Adams Colliver, A. B., M. D., Los Angeles. — We have just emerged from an epidemic of "infantile paralysis," practically the first, at least the largest, we have experienced in Southern California. History shows that epidemics have been spreading in the line of travel and it finally came our turn. With our enormous immigration it is a wonder we have escaped so long, and the chances are we shall have another next year. In anticipation of this, let us be ready by studying well our own situation, according to each man's experience, as each epidemic differs somewhat from the others. . . .

From an Original Article on "Partial Bilateral Nephrectomy in a Case of Calculous Pyonephrosis" by William E. Stevens, M. D., San Francisco.— The tendency of late years has leaned toward conservatism in renal surgery, especially since nephrolithotomy and nephropyelotomy have been introduced and become well-recognized operative procedures. The removal of a kidney for an existing nephrolithiasis was considered more or less prohibitive, and especially in cases of bilateral calculi was it looked upon as a grave mistake. Since the introduction of radiography into our diagnostic armamentarium, bilateral nephrolithiasis, which was considered very rare in preradiographic times, became a more frequently diagnosed pathological condition. It is considered by good authorities to occur in about 30 per cent of all cases, although the average in this country is somewhat less. It is obvious that here our aim must be to preserve the organ, although it may contain but very little functionating tissue. In the majority of cases only one kidney will be destroyed to such an extent as to make its removal imperative. In our own case, however, both kidneys at operation showed such an advanced stage of pyonephrotic destruction that if the process had been unilateral the removal of either kidney by primary nephrectomy would have appeared to be the most logical procedure. Before commenting further on the operative method pursued, a brief description of the case will be in order. . . .

From an Original Article on "X-Ray Findings Along the Gastro-intestinal Tract" by Albert Soiland, M. D., Los Angeles.—Röntgenology as applied to the alimentary canal

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by such men as Holzknecht, Kienbech, Kastle, Rieder and Rosenthal abroad, and Cole, Pfahler, Case, Stover, Cooper, and Painter, with many others in our own country, has opened up a field of diagnostic possibilities which is destined to add greatly to our store of knowledge pertaining to internal medicine.

The first great difficulty to overcome when confronted with the Röntgen plate is to differentiate the complex normal gastro-intestinal motor phenomena, from the abnormal or diseased. This is not easy when we recollect that the stomach assumes many shapes, and frequently occupies positions at variance with the normal, oftentimes without giving rise to abnormal symptoms. The same is true of the intestinal organs, and particularly of the large bowel, which even in health is capable of gymnastic feats that are extraordinary. It is indeed rare to find the transverse colon above the umbilicus, which should be, according to textbook and postmortem findings, the normal situation of this organ. . . .

From an Original Article on "Ringworm in California" by Howard Morrow, M. D., San Francisco.—This paper is based on the cases of ringworm which have occurred in hospital and office practice during the past two years. During an epidemic in an institution I had the opportunity of examining and treating forty-five children with ringworm. Smaller groups of cases were seen in other hospitals, and institutions for homeless children. With two exceptions all the scalp cases were of the microsporon variety, and none occurred in adults. The endothrix megal osporon was responsible for two cases occurring in one institution.

The infected children varied in age from two to thirteen years, the majority of them occurring in those from six to ten years of age.

(Continued on Next Page)



EDUCATION

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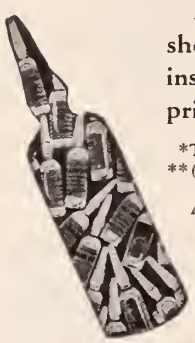




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TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

The majority of cases outside of institutions gave a history of infection acquired from cats, and many others were infected by contact with ringworm children. . . .

From an Original Article on "An Unusual Case of Ophthalmic Migraine" by E. W. Alexander, M. D., San Francisco.—Paroxysmal and functional nervous affections are obscure in pathogenesis and pathology. Migraine is a striking example of this and, therefore, a typical case exhibiting unusual characteristics, such as are present in the one I am reporting, should go on record as an aid to future deductions.

Everyone is familiar with the classification of migraine into ophthalmic, ophthalmoplegic and psychical; also that the symptoms of pain, nausea, etc., are preceded by various premonitory symptoms. These premonitory symptoms vary greatly in character, intensity, and duration. It is on the unusual type of such symptoms that my patient is interesting. . . .

From an Original Article on "Four Cases of Removal of a Prefrontal Tumor of the Brain" by L. Newmark, M. D., San Francisco.—Nowhere else in the brain are the conditions so favorable for the removal of a tumor without disturbance of function as in the neighborhood of the anterior pole of the hemisphere. Despite a tendency to associate intellectual activity with the forebrain, a tendency which seems to derive strength from some cases of frontal tumor which simulated paretic dementia so closely that they were altogether misinterpreted, operative interference in this region entails no mental deterioration. The motor and sensory centers are too distant to be affected, and the foot of

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the third frontal convolution is also remote enough to escape damage which might cause aphasia. . . .

From an Original Article on "The Differential Diagnosis of Palmer Syphilis, Eczema, and Psoriasis" by Douglass W. Montgomery, M. D., and George D. Culver, M. D., San Francisco. — The symptoms of syphilis, eczema, or psoriasis of the palms are often so perplexing that a differentiation is not always possible, and yet a positive diagnosis is here particularly important, not alone because of the necessity of the hand in daily work, but also because these diseases in this situation are so liable to be refractory that the moral support of certainty is eminently desirable as tending to hold the physician to a correct line of treatment.

Since the fire of 1906 there are records in our office of one hundred and two of these cases, of which sixty-four are recorded as eczema and nineteen each as psoriasis and syphilis. We now proceed to a review of some points of interest in these one hundred and two cases. . . .

From an Original Article on "Parasitic Skin Disease in California" by Ernest Dwight Chipman, M. D., San Francisco. — The subject of this paper was chosen because: (1) parasitic skin diseases are definitely increasing in California; (2) many new forms are being recognized elsewhere which probably occur here; (3) the diagnosis of certain of the mycotic diseases is a matter of paramount importance not only in dermatology but in the entire field of medicine.

The increase referred to applies both to diseases due to animal parasites and those due to vegetable parasites. As an example of the former, scabies has been frequently mentioned in the past few years and in the latter class ringworm is rapidly attaining the position of a commonplace, while a decade ago it was comparatively rare in California.

The occurrence of quite a series of cases, called by most California observers granuloma coccidioides, and originating in one circumscribed district, has presented a problem in mycology of especial interest to the practitioners of this state. The increasing number of diseases due to fungi reported in foreign countries, as well as in other parts of this country, leads not unnaturally to the supposition that unrecognized forms of mycotic disease exist here. . . .

From an Original Article on "Thrombosis of the Lateral Sinus, with Report of Five Cases" by Cullen F. Welty, M. D., San Francisco.—In a report of five cases of sinus thrombosis, it will be interesting to note that it covers a series of three hundred mastoid operations. This fact alone should attract your attention, because this small percentage of operated cases had sinus thrombosis, or were followed by the same. The reason for this is that serious complications were not allowed to develop under the guise of conservatism. Cases were operated early, and the more serious complications avoided.

Three cases of sinus thrombosis were from acute suppurative otitis media in a series of one hundred acute mastoid operations.

So you can readily understand that you are much more liable to the more serious infections in acute otitis media than in the chronic cases because of the immunity that is established by the chronic process. . . .

From an Original Article on "Ductless Gland Extracts in Relation to Ear Affections" by H. Y. McNaught, M. D., San Francisco.—In a paper read before the San Francisco County Medical Society on October 22, 1912, a preliminary report was made of the cases I had treated by ductless gland extracts for tinnitus aurium in the Ear, Nose and Throat Clinic, Medical Department of Stanford University. There is no apology to offer for the present consideration

(Continued on Next Page)

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TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

of this subject, for it is a condition which we are called on constantly to treat, only to feel at a loss, in the majority of cases, what to do. Our failure to cure or benefit such an apparently simple condition does not make for public confidence in our specialty. . . .

From "Orange County's New Hospital."—In September the contracts were let for a new county hospital for Orange County, to be built on the county farm at West Orange. It is estimated that the complete building will cost in the neighborhood of $50,000; it is to be of reinforced concrete, two stories in height, and the design is very pleasing.

From "Bubonic Plague: Another Human Case."—Another case of bubonic plague in a human subject occurred in Contra Costa County in September; the patient, a man, died in the county hospital on September 11. The last previously reported case of human plague occurred in June of this year and was that of a Japanese woman in San Benito County. It is announced that $40,000 has been appropriated by the Federal Government to continue actively the anti-plague work in this state. It is quite right that this work should be done by the federal authorities and paid for by the Government, for the plague-focus of California is a national and not a local problem.

From "Congress of Surgeons."—The fourth of these huge "congresses" will be held in Chicago during the week beginning November 10, and a most elaborate and extensive program has been prepared. The events of the evening sessions are here published and from them it can be seen that many surgical stars are to be heard from. The JOURNAL has already called attention to the fact that these "congresses" are not unmixed blessings. It is all right for the trained surgeon to hear some great man describe some complex operation in a few moments of time, or to see him perform it, but there will be hundreds of untrained "surgeons" (and possibly some "fellows of the American College of Surgeons"!) who will be misled by the apparent ease of the great-man operator and will attempt to do the same thing—with disastrous result to the patient.

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BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 424)

knowledge or lack of knowledge, one is probably justified in thinking that the real ignoramus is the doctor who does the abusing. Abuse is never argument, and it is seldom, if ever, becoming. It is the resort of the charlatan, not the scholar. . . ." (Editorial, San Francisco *Argonaut,* September 2, 1938.)

"The Federal Trade Commission today told Edwin J. Dingle of Los Angeles to stop advertising 'A Perfect Mind in a Perfect Body,' according to a United Press dispatch from Washington. Dingle, the Commission charged, operates the Institute of Mental Physics and advertises that he has studied under the 'masters of the Far East,' and can teach, through his courses, how to conquer old age. 'Purchasers cannot, as the respondent (Dingle) allegedly advertises, acquire heretofore unrevealed knowledge which will enable them to enjoy unfading youth of body and mind and which will teach any man how to become strong and keep young,' the Commission said." (Hollywood *Citizen-News,* October 1, 1938.)

"Mrs. Mignon Baker Brown, wife of an Oregon physician, today was granted judgments totaling $5,500 as the result of a suit growing out of the death here of her first husband two years ago and from whom she had been separated four years. The judgments handed down here by Superior Judge K. J. Trabucco directed Dr. Nathan S. Housman and John C. Farrell, ex-San Francisco policeman, to pay Mrs. Brown $2,500 and $3,000, respectively. Testimony heard by Judge Trabucco in July showed that Mrs. Brown's first husband, Louis Baker, Los Angeles bartender, carried $9,944 cash when he was fatally injured in a Bayshore Highway automobile accident in October, 1936. . . . Farrell testified Baker had given the $9,944 to him to pay for medical attention and for other expenses. Farrell said he paid Doctor Housman, a figure in the Frank Egan case, $5,000 for professional services. Doctor Housman testified from the $5,000 he collected he had paid two brain specialists $500 to operate on Baker." (San Francisco *Call-Bulletin,* September 29, 1938.) (Previous entries, November and December, 1932; July, 1933; January, 1937; September, 1938.)

"An imposter who robbed a blind man of the last of his savings, $19.25, was sought by police today. The thief entered a rooming house at 239 Third Street yesterday afternoon, represented himself to the landlady . . . as a city physician who was going about examining the indigent sick. She said a blind man in her house had been complaining of an ailment. The 'city physician' then 'examined' Gustave Spittka, sixty-five, prescribed some salve. Mr. Spittka offered to pay for the salve, explaining he had $15 in a small sack tied around his waist for safekeeping. 'No, it will be given to you free,' said the 'doctor.' 'The city of San Francisco will pay for it.' When he had gone, Mr. Spittka found that not only had he been robbed of the $15 in the sack, but that $4.25 had been taken from a small purse. It was all the money he had, he told police." (San Francisco *News,* September 20, 1938.)

"The world of darkness that is 75-year-old William Kelly's, was blacker and gloomier today. A man posing as a doctor visited Mr. Kelly's room at the Palomar Hotel, 176 Fourth Street, said he would like to help him. Mr. Kelly, who is blind, explained he had just received and cashed a $20 state pension check. 'Why,' exclaimed the stranger airily, 'you're entitled to at least a $75 check; I'll see that you get it.' He left. A short time later, Mr. Kelly groped his way to a dresser, where he had left the money from the check. The money was gone. Police told him the 'doctor' was preying on other blind men in the same manner." (San Francisco *News,* October 3, 1938.)

(Continued on Next Page)

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"Something new in traffic fine payments was offered to Justice of the Peace E. G. Driffill today when he received a special delivery letter from Charles Lester Davis, D. C., of Santa Barbara. After admitting that he was "stepping along after leaving Oxnard at between fifty-five and sixty miles for just one mile and had already slowed to fifty when I heard the siren," the chiropractor asked for suspension of the fine for two reasons. One reason was 'It hardly seems fair to make me pay for just one mile when I am ordinarily a good citizen when it comes to obeying the letter of the law' . . . He concluded: 'As a sporting proposition I suggest that I have my fine made payable in services. . . .' Inasmuch as the law requires the court to accept fines only in cash, and also because the judge would not want to bring in outside competition for local chiropractors, he advised Doctor Davis that he must pay up in legal tender." (Oxnard *Press*, September 10, 1938.)

"F. W. Becker, manager of the San Joaquin Catalyn Company here for the past five years, late yesterday pleaded not guilty when arraigned before Justice of the Peace George DeWolf on five counts of practicing medicine without a license. . . . Joseph W. Williams of San Francisco, special agent for the State Board of Medical Examiners, and Amil Demes, investigator for the District Attorney Dan F. Conway, arrested Becker. . . ." (Fresno *Bee and Republican*, September 21, 1938.)

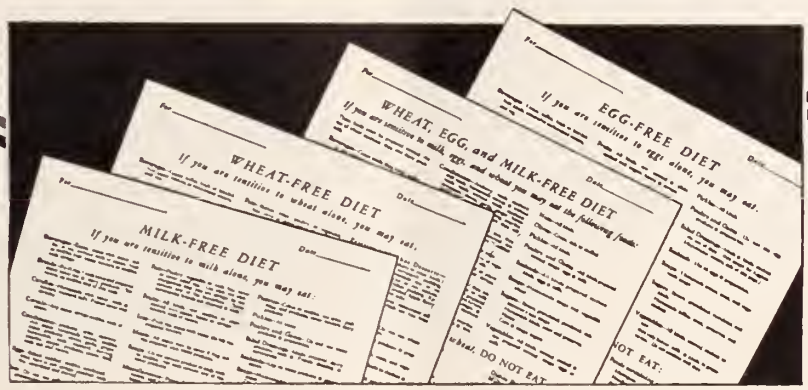
"Last vestiges of the federal resettlement administration's experiment with coöperative health groups in Los Angeles County have disappeared into thin air, it was revealed here today. Two starts with two different groups have been made since 1936, with persons who had borrowed money from the AAA privileged to pay $2 a month for group medical care. The $2 monthly was to be paid by the Government, and later repaid by the beneficiary along with his original loan. Private concerns were to provide the medical aid, but insufficient remuneration brought about dissolution of the health groups and apparently, the whole idea, the federal office here revealed today." (Los Angeles *Evening News*, September 21, 1938.)

"Clark B. Day, manager of the state compensation insurance fund, today said he will ask an opinion from Attorney-General U. S. Webb on the legality of cities retaining fees from the state fund over and above the actual payments to physicians attending city employees. Day revealed he has put a 'stop order' against any further payments of money for the treatment of Fresno City employees until the situation there is cleared up. Day said the matter was brought to his attention particularly by a situation in Fresno, but that other cities in the state have been resorting to the same practice. In Fresno, Dr. Gerald K. Nider, city physician, had been employed at a salary of $100 a month. The fees paid by the state compensation insurance fund went to Doctor Nider, who, under the city ordinance, was to endorse them over to the city. The question raised is whether the city legally can keep the money in excess of the physician's salary. . . . 'The money paid by the fund has been regarded as compensation for the physician and what other arrangement is made was a matter between the physician and the city. I cannot say whether this puts the city in the position of being a corporation engaged in the practice of medicine in violation of the law.' The fund manager said he does not consider it a matter of concern to the state if a physician does not comply with any understanding he may have with the city, that being 'a matter between the city physician and the city.' Opinions on the subject also have been asked of Hartley Peart, Attorney for the California Medical Association. Mr. Peart said he has forwarded his answer to Dr. A. E. Anderson of the Fresno County Medical Society, but declined to divulge the contents of his correspondence. . . ." (Fresno *Bee and Republican*, September 22, 1938.)

(Continued on Page 26)



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(Continued from Page 24)

"Jurors in Superior Judge Arthur Crum's court yesterday convicted Dr. Harvey Smith, Flintridge physician, on negligent homicide and drunk-driving charges. On Chevy Chase Drive in Glendale last May 22 the doctor's car struck and killed Arthur Erickson, credit agent." (Los Angeles *Examiner,* September 23, 1938.)

"Lois Simpson, thirty years old, charged with forging the names of San Bernardino physicians to two checks cashed on December 22, 1936, was booked in the county jail yesterday. Mrs. Simpson was taken into custody in Sacramento on the two-year-old warrant held by Sheriff Emmett L. Shay. She is charged with forging the names of Dr. W. T. Engleman to a check for $42 and the name of Dr. W. W. Fenton to a check for $32." (San Bernardino *Sun,* September 21, 1938.)

"A total of 140,000 signatures have been filed to an initiative measure to be submitted to the electors at the 1940 election. The petition provides for amendments to certain sections of the Chiropractic Act, provides the secretary of the Chiropractic Board shall devote full time to his duties, increases his salary, increases powers of the board, increases educational requirements of applicants for license, permits licensees to diagnose and treat diseases, injuries, deformities or other physical and mental conditions without using drugs or severing any tissues. . . ." (Long Beach *Press Telegram,* September 19, 1938.)

"Arrested on charges of using morphin illegally, Dr. Boyajian B. Armen, fifty, 3007 Thirty-eighth Avenue, today faced arraignment on charges of violating the state narcotics law. C. W. Creighton, agent of the state narcotics division, took Armen into custody after a druggist reported the doctor had taken morphine tablets from him, substituting non-narcotic tablets for the drug later. The doctor returned the harmless tablets to the druggist, saying they were the morphin capsules, Creighton said. . . ." (Oakland *Post-Inquirer,* September 14, 1938.)

"Dr. Hermann Frederick Erben, graduate of the University of Vienna Medical School, today pleaded with immigration authorities not to deport him to Germany, declaring he would be 'confined to a concentration camp.' Born in Vienna forty-one years ago, Doctor Erben has been residing in the United States since 1924. In 1930 he obtained his first American citizenship papers, An action has now been filed in federal district court here by the Government to revoke his citizenship papers. A. J. Zirpoli, assistant United States attorney, charged no record can be found of Doctor Erben ever having made entry into the United States with the intention of becoming a citizen. Zirpoli further charged that Erben returned to Vienna and took a postgraduate course in medicine, but declared in the affidavit under which he received his first papers, he had not been out of the United States from the time he first entered in 1924." (San Francisco *Call-Bulletin,* September 28, 1938.)

"Two years ago Dr. W. B. Foley was charged with practicing medicine without a license. But he disappeared before he could be tried. Sunday night, when deputy sheriffs responded to an accident call in which the driver had assertedly been drinking they found the long-sought fugitive, masquerading under the name of Walter Byron Trimble. The deputies yesterday told the Pasadena Justice Court that Doctor Foley freely admitted he was wanted. He pleaded guilty to the intoxication charge, was sentenced to ten days in the county jail, and given until September 29 to enter plea on the two-year-old charge. Doctor Foley said he had been living under the name of Trimble at 2855 North Fair Oaks Avenue, Altadena, for the past two years." (Los Angeles *Examiner,* September 27, 1938.)

(Continued on Page 29)

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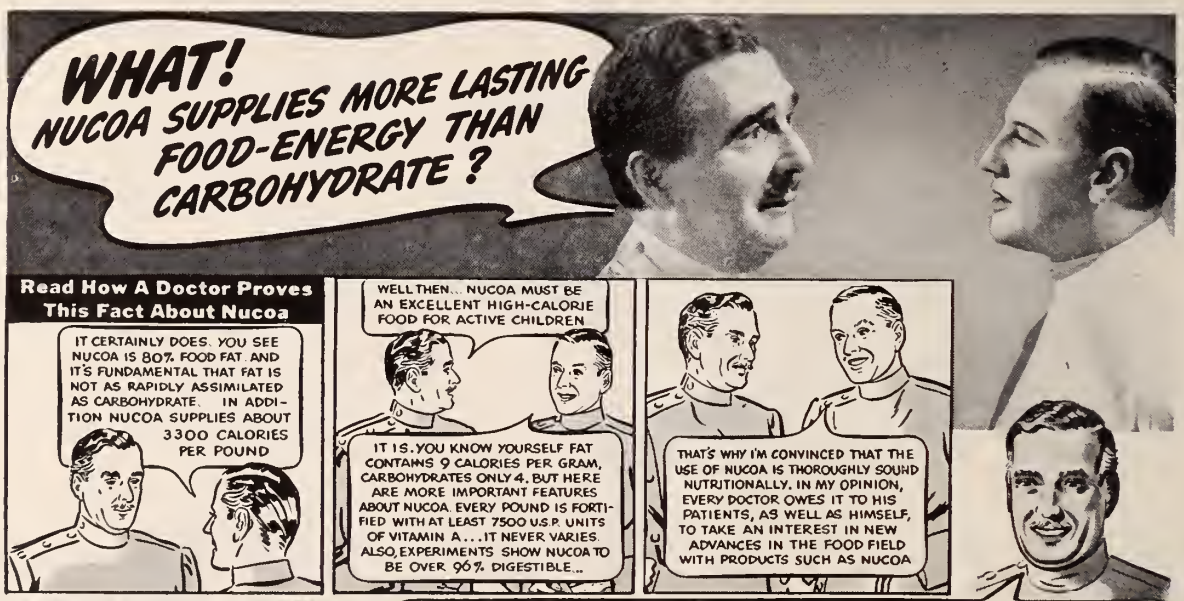
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HANS VON GELDERN, M.D., Consultant

BOARD OF MEDICAL EXAMINERS

(Continued from Page 26)

"W. M. Lukaskey, proprietor of an Anaheim Massage establishment, stood convicted today by a justice court jury on a charge of violating the State Medical Practice Act. A verdict of guilty came late yesterday afternoon after the jury, in Justice Charles Kuschel's court in Anaheim, had deliberated an hour and a quarter. 'We have no objection to the operation of a legitimate massage parlor,' declared W. N. Anderson, special agent for the State Medical Board, and Deputy District Attorney Warren Schutz in arguments to the jury, 'but when the defendant proposes to treat the blind, and when he promises to correct paralysis within fourteen hours after a stroke or pay $10,000, this must stop.' An 18-year-old Long Beach girl, who said Lukaskey promised to forestall blindness which threatened her, fainted on the witness stand during the trial. . . ." (Santa Ana *Journal*, September 23, 1938.) (Previous entries, May and December, 1934.)

"Trial of Dr. Clayton E. May, fifty, one-time 'Dillinger doctor,' on an abortion-murder charge, was continued today to October 17, because the trial judge, Alfred J. Fritz, is on vacation. Doctor May, together with his reputed nurse, Mrs. Frances Zoffel, is accused of the abortion death of Mrs. Doris Alexander, thirty, following an illegal operation assertedly performed in May's apartment at 444 Larkin Street, last April. May served a term in Leavenworth federal prison for 'lifting' former Public Enemy John Dillinger's face. He is in custody in lieu of $10,000 bail." (San Francisco *Call-Bulletin*, September 26, 1938.) (Previous entry on Doctor May, June, 1938.) (Previous entry Frances Zoffel, August and September, 1936.)

"The second degree murder conviction of Max Hickok, chiropractor, for the abortion death of Mrs. Elizabeth Sowers, in June, 1937, was affirmed yesterday by the District Court of Appeals. This court held 'no merit' in Hickok's appeal from a murder conviction." (San Francisco *Chronicle*, October 2, 1938.) (Previous entries, August, September, October, 1937; January, May, 1938.)

"Signed by United States Commissioner David B. Head, a federal complaint under Section 18 of 335 of the United States criminal code was filed late yesterday afternoon against Dr. Sidney Albert Brooks, who has been detained in the city jail for two days for investigation as to the authorship of several defamatory pieces mailed in this district. The defendant has stoutly denied authorship. . . . Friends of Doctor Brooks visited Chief of Police Charles H. Kelley late yesterday and secured from him permission for Dr. Aaron Rosanoff, expert in mental cases, to make a complete examination of Doctor Brooks' condition. While Detectives Al Norton and Joseph Kitzman state that they had discovered many pieces of defamatory matter mailed through the United States post office, the federal authorities were content to make and rest their case on a single instance." (Pasadena *Star-News*, September 29, 1938.)

"Superior Judge Timothy I. Fitzpatrick had under submission today a suit by Dr. Mary E. Walker, 236 Hillside Avenue, Piedmont, against Employers' Liability Assurance Corporation to enforce payment of a $25,000 judgment obtained by her against Mrs. Stella H. Adamson, a neighbor. On May 25, 1938, Doctor Walker and Mrs. Adamson left Piedmont early in the morning for Lake Tahoe. Between Dixon and Davis the car, traveling on a wet pavement, went off the highway and the woman physician suffered a broken back. She sued Mrs. Adamson in Alameda County Superior Court and secured judgment for $25,000. The state supreme court sustained this verdict. The insurance company, which covered the Adamson car, refused to pay, alleging collusion between the two women. The company alleged Mrs. Adamson agreed to assume the responsibility, leaving Employers' Liability Assurance holding the sack." (San Francisco *Call-Bulletin*, October 5, 1938.)

(Continued on Next Page)

Bequest Forms: Unto the California Medical Association*

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

"Convicted of conspiracy to perform an illegal operation upon Mrs. Maria Colombos, twenty-three, Robert Avery Gilbert, former vaudeville hypnotist, yesterday was sentenced by Superior Judge A. A. Scott to a term of from two to five years in San Quentin prison. The body of Mrs. Colombos was found on a divan in her home, . . . Glendale, last June 30, after Gilbert had admittedly visited her. Gilbert testified in his own defense that the woman had fainted in lifting the divan in an effort to effect relief from her condition, after he had tried to dissuade her from avoidance of motherhood, and died despite his efforts to revive her. An autopsy failed to result in medical determination of cause of the woman's death. George Colombos, twenty-three, the husband, was witness for the state in its claim that Gilbert had conspired with him and his wife to perform an operation. Gilbert's application for probation was denied by Judge Scott." (Los Angeles *Daily News*, October 5, 1938.)

"Efforts were being made in a Long Beach clinic today to save the life of 14-year-old Paul Hustos, who was near death as the result of peritonitis, for which, according to police, his grandmother refused him medical treatment. Superior Judge Robert Scott of the Juvenile Court was informed of the boy's condition yesterday during his weekly session in that city and immediately made the child a ward of the court so that he could be given proper treatment. The child, according to physicians, is suffering from a ruptured appendix and peritonitis has set in. His grandmother, Mrs. Dolla Hissner, denied him treatment, in accordance with her beliefs, authorities stated. . . ." (Los Angeles *Herald-Express*, September 15, 1938.)

"Two young women were lodged in the county jail yesterday as material witnesses against Paul de Gaston, who is scheduled to be arraigned before Justice of the Peace



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THE POTTENGER SANATORIUM AND CLINIC, Monrovia, California

Guy B. Knott on charges of conspiracy, performing an illegal operation and practicing medicine without a license. One of the prisoners is Miss Erraine Franzen, twenty-two, on whom de Gaston is alleged to have performed an abortion. . . . Miss Franzen's bond was placed at only $1,000, as (Deputy Prosecutor Lawrence) Peters said she was a voluntary prisoner. M. Baskerville and Amy Martin are co-defendants with de Gaston in the conspiracy case, being accused of concealing Miss Franzen from arrest for attempted suicide." (Seattle *Post-Intelligencer*, September 30, 1938.) (Previous entries, February, 1935; July, 1936—Pacific Coast Abortion Ring.)

The recent arrest of George F. Vivier, one of the asserted operators of the Kovac Institute, Los Angeles, resulted in investigators of the Board of Medical Examiners obtaining a photostat of a spurious medical diploma bearing the name Tulane University of Louisiana, dated May 20, 1922, on which appears the name George F. Vivier. It is reported Vivier had this document hanging in his Los Angeles office and that Vivier related to Investigator Walter N. Anderson a story in effect that he attended Tulane for four years; was expelled for misconduct involving liquor and women; went to war; returned to find no record of his having ever attended Tulane, whereupon a physician, one C. Jeff Miller, now deceased, prepared his diploma to show Vivier's dying mother that Vivier had completed the course and so she died happy. Our investigator relates: "The best I can say about this story is that it is apparently the invention of Vivier's fertile imagination, but still, by the same token, we have his admission that it is fraudulent. . . ."

Investigation reports relate that a misdemeanor warrant has been issued in Division 7 of the Municipal Court of Los Angeles for Maximilian Leopold Herzig, charging him with the unlicensed practice of medicine, with bail set at $1,500; that Herzig, driving a bright red 1938 model Graham sedan, carrying a 1938 Washington license No. A-64123, is believed to be now in Kent, Washington. (Previous entries, October, 1930; January, 1934; June, 1938.)

Investigation reports relate that Glenn Grainger White, M. D., whose license to practice medicine in the State of California was revoked by the Board of Medical Examiners on February 11, 1937, based on an alleged illegal operation, and who assertedly has continued to practice in this state, despite the Board's action, was on August 26, 1938, arrested in San Diego on a charge of practicing medicine without a license. On August 31 the charge against Glenn Grainger White was dismissed in the Municipal Court of San Diego on the asserted grounds that the complaint filed by the investigators for the State Board of Medical Examiners did not state a cause of action, this despite asserted opinions of well-informed attorneys in San Diego that the old complaint used by the Board of Medical Examiners is sufficient to state a cause of action.

An investigation report relates that the case of F. Hernandez Rubio, charged with violation of the Business and Professions Code, was dismissed by San Diego Municipal Judge Phillip Smith on the asserted grounds that the complaint filed by the investigators of the Board of Medical Examiners did not state a cause of action.

"Dr. Charles B. Boudwin, fifty-eight, today pleaded guilty to a charge of reckless driving and was sentenced by Judge Milan E. Ryan to serve ninety days in the county jail. Judge Ryan suspended sixty days of the sentence on condition that the physician, who gave his address as 1120 Victoria Avenue, Venice, surrender his driver's license for two years. Doctor Boudwin was arrested last night at Third Street and Colorado Avenue. Officers said he crashed head-on into a car operated by Monte Langes, twenty-two, 310 Fifth Avenue, Venice. Dr. Rodney Snow examined the defendant and said he had been drinking and had taken an overdose of a hypnotic drug." (Santa Monica *Outlook*, October 1, 1938.)

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CALIFORNIA AND WESTERN MEDICINE

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EDITOR GEORGE H. KRESS

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BUSINESS MANAGER GEORGE H. KRESS

Advertising Representative for Northern California
L. J. FLYNN, 544 Market Street, San Francisco (DOuglas 0577)

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Change of Address.—Request for change of address should give both the old and the new address. No change in any address on the mailing list will be made until such change is requested by county secretaries or by the member concerned.

Responsibility for Statements and Conclusions in Original Articles.—Authors are responsible for all statements, conclusions and methods of presenting their subjects. These may or may not be in harmony with the views of the editorial staff. It is aimed to permit authors to have as wide latitude as the general policy of the Journal and the demands on its space may permit. The right to reduce or reject any article is always reserved.

Contributions—Exclusive Publication.—Articles are accepted for publication on condition that they are contributed solely to this Journal. New copy must be sent to the editorial office not later than the fifteenth day of the month preceding the date of publication.

Contributions—Length of Articles: Extra Costs.—Original articles should not exceed three and one-half pages in length. Authors who wish articles of greater length printed must pay extra costs involved. Illustrations in excess of amount allowed by the Council are also extra.

Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE has prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

STATE HUMANE POUND ACT (INITIATIVE NO. 2)

Balloting Results.—CALIFORNIA AND WESTERN MEDICINE's issue for November will be in press by November 8, election day, on which account nothing but a guess can now be hazarded concerning the decision of California's electorate as to the "State Humane Pound Act," known as Initiative No. 2.

It is our hope, however, that this measure, so inimical to the real interests of public health in our State, will have by then gone down to a deserved defeat. For the moment, comment will be limited to some features of the campaign just closing against the proposed initiative.

* * *

Set-up of the Organized Effort Against Proposition No. 2.—To some physicians, it may have appeared that the organized effort brought into being to oppose the "State Humane Pound Act" was somewhat slow in getting under way. This impression could easily have been gained, because certain California newspapers, from the very beginning, not only gave much space to the Act's proponents, but were more than reluctant to accept "copy" in which the fallacies of the initiative were exposed.

Nevertheless, here and there, other newspapers were generous in accepting such articles, and also in printing editorial comment against the proposed law.

The fight to oppose Initiative No. 2 was carried on in reality in its initial stages, by organization of public-spirited citizens (college presidents, church prelates, attorneys, physicians and others), who founded the California Society for the Promotion of Medical Research. That resourceful organization alone not only secured resolutions from national and state groups condemning the misnamed "Humane Pound Act," but also carried on an intensive educational campaign; providing speakers before assemblies, and bill poster and hand literature, and sending newspaper copy to the daily press. Also spot and other radio announcements. Much credit, therefore, is due the many workers of that efficient organization.

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

The California Medical Association Council, too, on behalf of the members of the California Medical Association, gave the sum of $5,000 to the California Society for the Promotion of Medical Research for use in meeting expenses other than salaries.** In addition, among the component medical societies, that of Alameda County set the pace by allocation to the California Society, for the same purpose, the welcome sum of $2,500, or $5.00 for each of its members. Other county units, as both the Los Angeles and San Francisco County Medical societies, also made generous donations.

* * *

Program of the Council's Special Committee. The Council, besides, appointed a special committee to devise and carry on, through the Central Office of the California Medical Association, the distribution and follow-up work in the sending of fifty post cards to every one of the six thousand California Medical Association members.* It is not necessary to comment on this post-card activity, because all members received the explanatory and other literature, and should, therefore, be familiar with the parts they themselves have taken in that important phase of the work.

Special appreciation and acknowledgment, however, must be made to the Woman's Auxiliary to the California Medical Association, and to the Public Health League of California for the generous and efficient services rendered by their members.† The success of the post-card campaign was predicated upon the support those organizations offered to give, and the California Medical Association is indebted for the aid so willingly and ably rendered.‡

* * *

"Life's" Contribution to the Cause.—A particularly pleasant experience, in this battle against Initiative No. 2, was the receipt of a copy of the October 24 issue of *Life*, presenting on pages 46–53 a pictorial story with brief explanatory text, calling attention to this evil that demanded the opposition of all right-thinking citizens, and worthy of the best ideals of the press. A copy of *Life* was sent to every county medical society and to all daily newspapers in California; and county societies were urged to have their members place a marked copy on reception-room tables, and to request druggists and other trade people to place the pictures inside their display windows for the further enlightenment of the public.

Many members of the California Medical Association also sent wires of appreciation to the editors of *Life;* and now CALIFORNIA AND WESTERN MEDICINE, as the official organ of the Association, likewise extends its compliments to the editors of that national publication, and expresses a hearty appreciation of this notable public health service, so splendidly rendered by naturally alert *Life*.

* * *

Organization Experiences Should Be of Future Value.—Much more could be written concerning the "State Humane Pound Act." As previously remarked, we do not know, at this time of writing, what will be the final tally on Number 8 of ballots expressive of California's citizenry. We can only hope that the disguised movement will be defeated, and we believe that the Initiative will not become a law. If, however, it is enacted, then we shall surely gird ourselves afresh, and the stronger, to meet in future all similar onslaughts against public health interests; in full faith that, in the end, right will prevail. And once again, the thanks of the California Medical Association to all who participated in the battle against this 1938 inhuman "State Humane Pound Act—No. 2"!

DEL MONTE ANNUAL SESSION
MAY 1–4, 1939

Del Monte Always Attractive for Annual Sessions.—During many and recent years, a favorite yearly gathering place for members of the California Medical Association has been the Hotel Del Monte, at Del Monte in the historic County of Monterey.

The next annual session will chronicle the sixty-eighth year of existence of the California State Medical Association, a constituent state unit of the American Medical Association having, with Massachusetts and Ohio, seven members in the American Medical Association House of Delegates and being exceeded in number only by New York with its nineteen members, Pennsylvania with eleven, and Illinois with nine; a statistic or two that will indicate the numerical place which California occupies in the membership rosters of the national organization.

It has been only a brief two years since the sixty-sixth annual session of the California Medical Association convened at Del Monte, and an early return there will indicate the Hotel's popularity for convenient location, pleasant accommodations and a most inviting environment.

* * *

Hotel Reservations Should Be Made.—As is well known, the management of the Hotel Del Monte may always be relied upon to make every effort to provide accommodations in the hotels on the Monterey Peninsula, and members of the Association who have planned to attend should early send in their written requests for reservations, addressing the Hotel Del Monte, Del Monte, California. These requests will be filed, in the order of their receipt, and in due time, and with an effort to meet individual preferences, the allocations will be made.

* * *

Program of Scientific Features.—As in the past the scientific program of the annual session of 1939 will be divided in respect to three activities:

** Subsequently, by favorable mail vote of the California Medical Association Council, an additional $2,000 was granted, making $7,000 in all, so given.

* For purposes of record, the six-page circular of instructions is printed in this issue, on advertising page 34.

† Acknowledgment must be given to Dr. John W. Crossan of Los Angeles, who represented the Association Secretary in supervising the work in the counties south of the Tehachapi.

‡ An example of the manner in which a county auxiliary helped appears in this issue, in the Department of Public Relations department, on page 401, in a letter from San Diego.

(1) the General Sessions; (2) the Section Meetings, and (3) the Scientific Exhibits.

The General Meetings are under the combined jurisdiction of the Council, both as to number and nature of programs. The first general meeting will be held on Monday morning, featuring the address of President W. W. Roblee, and one or two addresses by Guest Speakers. One other general meeting will probably be a Clinical-Pathological Conference led by speakers who are guests, and possibly a third general meeting will be devoted to medical organization problems.

* * *

Prospective Essayists Should Write to Section Secretaries.—Each of the twelve scientific sections of the Association—(1) Anesthesiology; (2) Dermatology and Syphilology; (3) Eye, Ear, Nose, and Throat; (4) General Medicine; (5) General Surgery; (6) Industrial Medicine and Surgery; (7) Neuropsychiatry; (8) Obstetrics and Gynecology; (9) Pathology and Bacteriology; (10) Pediatrics; (11) Radiology, and (12) Urology—will present a varying number of papers, of particular interest to members in the specialties or in general medicine and surgery.

The officers of each scientific section, whose names and addresses are printed in every issue of California and Western Medicine, on advertising page 6, are now engaged in working up their programs. Members of the Association, who have papers in mind which they wish to present at the next annual session, should write at once to the proper Section Secretary, giving the title of the topic, and a brief outline of the nature of the paper. Because decisions on the program will be made at an early day, it is important that all essayists should send the necessary memorandum to the Section Secretary within the next week or so. The State Committee on Scientific Work also urges all prospective essayists to act promptly in these matters.

* * *

Scientific Exhibits Should Be in Preparation. What has been stated concerning section papers, applies also to scientific exhibits. Members of the California Medical Association who desire to present, in the form of exhibits, results of their studies and observations, should communicate with the Association Secretary, at the same time sending a copy of the letter to the proper section secretary. Here again, an outline of the nature of the exhibit, the facts it is intended to illustrate and emphasize, the approximate space and material required, all should be briefly indicated. In that way, the plans for the housing of the scientific, as well as the technical or commercial exhibits, can go forward without undue delay.

* * *

Prompt Coöperation Is Requested.—As already stated, the California Medical Association Committee on Scientific Work (whose names are likewise to be found in each issue of this magazine, on advertising page 2), and also the section presidents and secretaries, request all members who are interested in these matters to give the same their early attention, thus insuring, through enthusiastic mutual aid, the groundwork for a session in 1939 that should prove the most attractive and successful ever convened by the California Medical Association.

POSTGRADUATE ACTIVITIES OF THE CALIFORNIA MEDICAL ASSOCIATION

California Medical Association's Five-Year Study Program.—Under the chairmanship of Dr. John C. Ruddock of Los Angeles, the California Medical Association's Standing Committee on Postgraduate Activities last year embarked upon a five-year program having, as its basic purpose, the offering and bringing to county societies (acting singly or in groups), of postgraduate conferences; along lines as outlined in the Postgraduate Supplement of the October issue of California and Western Medicine.

In so ambitious an effort, with but few previous local experiences to serve as a guide for best paths of approach in the new work, it is not to be wondered at that the first year's efforts should have fallen considerably short of what, it is to be hoped, future years will record.

* * *

October Postgraduate Supplement.—With the October issue of the Official Journal, Program II of the "Five-Year Study Program for Graduates in Medicine" has gone forward, carrying its message to the six thousand members of the California Medical Association. On pages 2 and 3, the Supplement, as members may have noted, gives an index of the 126 courses which are briefly described on pages 7-15.

The procedure to be followed in providing such courses is given on page 5, under the heading, "General Information."

The attention of each of the thirty-nine component county societies of the State Association, is again called to this important new-feature work, with the hope expressed, on behalf of the California Medical Association Committee, that each county medical society, if it has not already done so, will appoint its own Committee on Postgraduate Conference, to work with similar groups in adjacent counties, having as an objective the institution of a Postgraduate Conference for the district.

* * *

Steps to Keep in Mind.—A perusal of the Foreword and General Information paragraphs of the October Supplement will reveal the procedure methods which, experience has shown, are apt to ensure the most success.

It is important to remember that each local committee should consist of physicians who not only want to try out Postgraduate Conferences, but who are willing to give of their best personal efforts to make them a success.

To be kept in mind, also, are other items, such as that: the preliminary work must be done by the local committees, who will decide what county societies are to be the active sponsors of the Conference; what county societies, not too far distant

are also to receive invitations for attendance of members; what postgraduate courses are most needed or of possible greatest interest; whether the conferences shall be of one, two or three-day periods; what hours of the day, and where to be held; the sources of supply of the clinical material for the guest speakers; and whether the courses of the present year are to be preliminary to others of a more specialized nature, to be followed up in the next several years, and so on.

* * *

Successful Conferences of San Joaquin and San Diego Societies.—What can be accomplished has been demonstrated by the San Joaquin County Medical Society, which unit, under the enthusiastic chairmanship of Dr. C. A. Broaddus, in September carried through its fourth annual Graduate Study Conference—as reported on in last month's issue, on page 341; while in October, despite unforeseen handicaps, a very successful Conference was held in San Diego under the sponsorship of a committee, on which Doctors W. H. Geistweit, Jr., and Lyell C. Kinney gave splendid service.

These successful conferences of San Joaquin and San Diego are mentioned to prove that equally beneficent objectives could be realized in other counties of the State did only the will exist to hold such Postgraduate Conferences.

* * *

California Medical Association's Postgraduate Committee Will Assist.—The State Committee, as announced in the October Supplement, is anxious to assist, and its members hope that local committees will be brought into being and that postgraduate conference plans will materialize in the near future in many districts of California, so that a progress report of real merit may be given at the next annual session of the State Association.

COURT'S DEFINITION OF CHIROPRACTIC—A PROPOSED CHIROPRACTIC PRACTICE ACT INITIATIVE

Cultist Healing Art Practitioners Never Tire.—Cultist medicine is increasing in its legislative efforts. If it is not one cult, it is another. Depending upon the commonwealth, and the extent to which this, that or the other group of practitioner cultists may have gotten a foothold, one may see a state confronted with well-organized naturopaths, physiotherapists or what not, seeking to secure legal recognition to practice their "art," be "that" what it may.

* * *

California Is a "Multiple-Board" State.—California is one of the states of the Union that has gone through this sad experience. As a consequence, it is a "multiple-board state," namely, a commonwealth that has seen fit to grant legal recognition, not only to nonsectarian practitioners of the healing art—doctors of medicine—but to other groups that are sectarian—the osteopaths and the chiropractors.

Proposed Chiropractic Act Initiative.—The California chiropractic group has been somewhat unhappy with its initiative law, and for several reasons. Thus, as an initiative law, all its errors are "frozen"; that is, the law cannot be changed except by a favorable electorate vote of the entire State on amendments that would be proposed for elimination of the initial statutory mistakes. That is what the California group of chiropractors, of whom there are at present about three thousand licensed in the State, now propose to do; and that, in spite of the great expense of securing the more than 186,000 signatures necessary to obtain placement of an initiative act on a state election ballot.

During the last month, such a list of signatures of citizens, legally acceptable to the Secretary of State, has been filed, and at the state election in 1940 (or before, if a special state election should be held prior to 1940) the chiropractic initiative will have a place on the ballot. The proponents of that initiative found that the necessary number of legal signatures was lacking on August 15, 1938, and therefore, in order not to lose the value of signatures previously gathered, as would happen by filing on or before that date, they continued to seek signatures until an adequate number was secured, and then filed and were certified to, as before stated, not for the November 8, 1938, election, but for the first succeeding state election.

In due time, a copy of the proposed chiropractic act will be given space in California and Western Medicine.

* * *

Why the Proposed Chiropractic Initiative Amendments.—The restlessness of the chiropractic group, under the existing law, with its loose requirements on preliminary and other education, and its worse definition of what chiropractic is, can be appreciated by reading the opinion of Judge John J. Van Nostrand, originally handed down on September 28, 1936, and only recently (October 6) put into legal force. Comment concerning this opinion was made in California and Western Medicine on pages 414-419 in its issue for November, 1936.

* * *

More Anon on This Topic.—The subject is called to the attention of county society committees on public policy and legislation, in the hope that, from time to time, members of component societies may be further informed concerning the issues involved, particularly as they are related to public health and medical practice standards.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 392.

EDITORIAL COMMENT†

THE "SCOOP" AS A SOURCE OF BACTERIAL CONTAMINATION OF ICE CREAM

Routine sampling of market ice cream for bacteriological counts is generally an established health department procedure. The San Francisco ordinance regarding milk and ice cream has legally determined that ice cream, when sold by manufacturer, distributor or retailer, shall not contain nonpathogenic bacteria in excess of 50,000 per gram. The prevalence of higher bacterial counts, however, in market ice creams in San Francisco made further investigation necessary as to all possible sources of contamination. Several sources were ascertained, but the most fruitful appeared to be the "scoop and its washings." It was the rule, rather than the exception, to find receptacles for the ice cream scoops to be infrequently cleaned throughout the day, the water intended for washing scoops unchanged, and chemical or other methods of sterilization rarely used. In the survey conducted, 487 samples of scoop washings were obtained for bacteriologic analysis. In 124, or approximately 25 per cent, the bacterial counts were under 10,000 cubic centimeters; 266 (or 54 per cent), over 100,000 bacteria per cubic centimeter; and 97, or approximately 20 per cent, over 1,000,000 bacteria per cubic centimeter. To obviate such high bacterial counts, a sanitary code for the use and cleansing of ice-cream scoops was promulgated. This code requires several daily washings of the scoop and its receptacle with soap and hot water; the frequent changing of water in the receptacle; the washing of the scoop in clean running water, preferably hot, before being used for service; and, finally, the avoidance of direct handling of the lower portion of the scoop by the attendant. The adoption of this sanitary code, the checking by bacterial sampling and examination and ordinary inspection, will serve to reduce materially this source of contamination of a universally used food.

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DO ALIEN PROTEINS MULTIPLY IN THE ANIMAL BODY?

The possibility that certain antigens are autocatalytic colloids, capable of multiplying (or, of being multiplied), in symbiosis with animal tissues, is a speculative hypothesis now under serious consideration by immunologic theorists. The latest experimental evidence in support of this theory is a quasi-proliferation of tetanus toxin on intramuscular injection into rabbits or guinea pigs. Doctors Zuger and Friedemann, [1] of the Division of Bacteriology, Jewish Hospital, Brooklyn, for example, noted that from ten to twenty times the calculated therapeutic dose of tetanus antitoxin was required to protect guinea pigs or rabbits if multiple lethal doses of tetanus toxin were injected intramuscularly, rather than intravenously, as in routine titrations. Thus, their standard dose (10 MLD) tetanus toxin injected intravenously, required but 0.00025 cubic centimeters, commercial antitoxin for complete neutralization. The same dose, however, given intramuscularly required ten times this dose, or 0.0025 cubic centimeters commercial antitoxin. They concluded from this observation that there is some hitherto unsuspected multiplication, activation, or "potentiation" of tetanus toxin in guinea pig muscles.

To test this conclusion 200 MLD tetanus toxin was ground up with five grains of exsanguinated guinea pig muscle. The resultant emulsion was centrifuged, and the supernatent fluid injected intramuscularly into guinea pigs, control injections being made with the same calculated dose of unaltered tetanus toxin. In their controls 1 cubic centimeter, 1:4000 dilution of unaltered tetanus toxin was the minimum lethal dose; the "muscle toxin," however, requiring but an eighth of this dose, or 1 cubic centimeter of a 1:32,000 dilution to produce the same lethal effects. The natural toxin, therefore, had apparently been increased eightfold in toxicity as a result of contact or symbiosis with muscle tissues. The "muscle toxin," however, was rapidly "depotentiated" on intravenous injection, and, thus tested, required only the usual amount of commercial antitoxin for complete neutralization.

Probably the simplest phenomenon of this type thus far studied by immunochemists is the four- to eightfold quasi-proliferation of proteins under the influence of certain relatively mild proteolytic enzymes. Dr. Harold C. Sox[2] of Stanford University, for example, mixed one volume horse serum with twenty volumes canine leucocytic extract. Titration of the mixture by means of anti-horse rabbit precipitins after eighteen hours' incubation gave readings suggesting a four- to eightfold *in vitro* multiplication of horse proteins. Doctor Sox's explanation of this apparent multiplication assumed that "under the influence of leucocytic proteolysin each horse protein molecule is hydrolysed into from four to eight daughter protein molecules, each daughter molecule being of approximate horse protein specificity." Doctor Sox subsequently demonstrated similar "depolymerization" or "symmetrical hydrolysis" of horse proteins on intravenous injection into dogs.

The apparent proliferation of alien (or denatured tissue), colloids of greatest current clinical interest, however, is the quasi-proliferation of B. welchi toxin, or the "formation of secondary hema-toxic products," on intratibial injection into rabbits. About ten years ago, Doctors Torrey and Kahn,[3] of Cornell Medical College, found that they could inject 0.5 cubic centimeter of a non-hemolytic B. welchii filtrate intravenously into rabbits without producing a very appreciable anemia. All animals

† This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

1 Zuger, Bernard, and Friedemann, Ulrich: Proc. Soc. Exper. Biol. and Med., 38:283 (Mar.), 1938.

2 Sox, Harold C., et al.: Proc. Soc. Exper. Biol. and Med., 27:72, 1929; J. Immunol., 21:409, 1931.

3 Torrey, John C., and Kahn, Morton C.: Am. J. Path., 5:117, 1929.

survived this injection. The same dose, however, injected into a single bone marrow (tibia) caused progressive degenerative changes in all bone marrows of the body, with ultimate death due to an anemia resembling pernicious anemia in man. This observation has been confirmed by Dr. S. D. Beard[4] and his associates of Pearl River, New York. Here tetanus toxin brought into symbiosis with bone marrow cells was apparently "potentiated" or otherwise changed to an organ-specific hormone of increased toxicity. This toxic hormone caused secondary degenerative lesions in all bone marrows of the body.

The theory that certain alien proteins (or denatured tissue proteins), are autocatylitic colloids, multiplying or being multiplied in symbiosis with living tissue cells, furnishes a plausible explanation for various phenomena of this type. This theory, however, is by no means the only plausible explanation of such phenomena, and must be subjected to much more critical study before its adoption in routine clinical logic. Thus far, the most convincing evidence in support of this theory is drawn from the environmental "transformations" of bacteria, environmentally induced bacteriophage, lysozyme, or carbohydrate specificity multiplying (or being multiplied), in symbiosis with bacterial cells. The reported work with tetanus and B. welchi toxins strongly suggest, but by no means prove, similar colloidal symbiotic processes in animal tissues.

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4 Beard, S. D., Clark, G. W., and Moses, Max J.: Proc. Soc. Exper. Biol. and Med., 26:13, 1928.

Rabies: Report of Twelve Cases, with Discussion of Prophylaxis.—Maurice L. Blatt, Samuel J. Hoffman, and Maurice Schneider, Chicago (*Journal of the American Medical Association*, August 20, 1938), discuss the twelve cases of rabies admitted to the Cook County Hospital between 1929 and 1937. All proved fatal. The diagnosis in each case was confirmed by necropsy. The incubation period for the patients varied from two weeks to two months. The closer the site of the bite to the central nervous system the shorter was the incubation period. Wounds made by the bites of animals should immediately be cauterized with nitric acid. The Pasteur treatment or one of its modifications should be instituted in accordance with rules outlined and accepted. The twelve persons whose cases are reported died after suffering great agony and might have been saved if adequate prophylactic measures had been instituted immediately. They were admitted to the hospital after having been ill from two to seven days and anywhere from two weeks to two months after they had been bitten by dogs. Stringent enforcement of regulations governing ownership, licensure, muzzling and leashing of dogs would have prevented the bites. The extent of this problem is evidenced by the fact that in the state of Illinois alone 18,466 dog bites were reported to the State Department of Public Health in 1936 and that there were ten deaths from rabies. A knowledge of similar facts would divulge a tremendous loss of time and of lives of human beings and animals in the United States from a preventable cause. When such knowledge becomes public it will be of inestimable educational value in the eradication of this dreadful malady.

ORIGINAL ARTICLES

INDUCTION OF LABOR: SOME DIFFICULTIES*

By William Benbow Thompson, M.D.
Los Angeles

Discussion *by Henry A. Stephenson, M. D., San Francisco; Donald G. Tollefson, M. D., Los Angeles; John W. Sherrick, M. D., Oakland.*

In April, 1931, Dr. J. Morris Slemons[1] discussed "The Induction of Labor at Term" before the Los Angeles Obstetrical and Gynecological Society, and presented the results from 132 cases of rupturing the bag of waters in order to secure the onset of labor. In the same month, and stimulated by a prior enthusiastic letter from Doctor Slemons to Dr. J. W. Williams, Guttmacher and Douglas[2] of Johns Hopkins reported 120 such inductions. With the evident approbation of the leaders of the conservative school, the method soon was widely adopted. Articles detailing the findings by Morton[3] of Lynch's Clinic with 150 cases, Vruwink of Los Angeles[4] with 128 cases, Stern[5] of Philadelphia with eighty-five cases, Plass and Seibert[6] of Iowa City with 681 cases, and Mathieu and Holman[7] of Portland with 750 cases, appeared in the literature. All of these papers admit occasional failures or difficulties, but the general impression to be gained from a casual reading is that the age-old problem of the obstetrical attendant of how best to promote shorter and easier labor is practically solved. Only a close and critical study reveals the pitfalls that would entrap the unskilled and unwary. Hence it seems worth while, at this time, to emphasize the unfortunate results lest a valuable and practical procedure fall into disrepute through inappropriate application.

METHOD OF SLEMONS

The method proposed by Slemons was (1) castor oil, 2 ounces, with quinine, 10 grains; (2) four hours later rupture of the membranes; (3) intranasal application of a solution of pituitary extract until regular contractions were established. No one of these was an an innovation. Castor oil and quinine as an "obstetrical cocktail" has a more or less honorable ancient history; Denman[8] in 1802 advocated rupture of membranes to institute labor; and Hofbauer[9] in 1927 suggested the nasal route for administering pituitary extract. The logical combination of these steps, however, appealed to Slemons, and, despite various modifications, the method is essentially as he proposed. Guttmacher and Douglas found that, by omitting the pituitary extract, both the "latent period" before the onset of contractions and the labor itself were somewhat lengthened, while rupture of membranes alone, in two cases, prolonged the latent period to a dangerous degree. Morton suggested the vaginal instillation of 30 cubic centimeters of 4 per cent aqueous solution of mercurochrome as advocated by Mayes[10] for normal labor. Vruwink reduced the amount of quinine, reserved the pituitary ex-

* Read before the Obstetrics and Gynecology Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

tract application for those in whom labor did not promptly follow the rupture of the membranes, and advocated the abandonment of the practice of stripping the membranes from the area about the internal os. This last measure is not to be found in Slemon's paper, although it was, I believe, a portion of his technique. Mathieu and Holman now utilize rupture of membranes only if labor has not been initiated by three or four injections of pituitary extract at hourly intervals, and also omit the preliminary castor oil and quinine. They rely chiefly upon the pituitary extract, even to the extent, in their last 114 cases, of rendering the patient asleep with 7.5 to 12 grains of pentobarbital before attempting induction. With the exception of the last given method, it will be seen that these reports may fairly be considered as giving the results of the original technique.

EVALUATION OF RESULTS

An evaluation of the results of this or any other method of conducting labor cannot rest alone upon the percentages of maternal and fetal recoveries. Also to be considered are length of labor, morbidities, injuries to the birth canal, and accidents. Taken as a unit, the reports cited may be admitted to be the acme of perfection in so far as results are concerned; that is, they are by excellent men working under excellent conditions. Uniformly, labors were found to be shorter than average. This decrease in the hours in labor will be discussed later. Despite the increased danger of intrauterine infection after rupture of membranes, morbidities were lower than the control groups. To what extent this might be due to the fact that, with very few exceptions, these patients were normal women with normal pelves, is not clearly presented, since the control groups usually were clinic averages. Studies of the cervix after induced labors have not as yet appeared, but Norman Williams,[11] who routinely inspects the cervices of his patients on the eighth or ninth day, states that it is his impression that fewer injuries requiring repair are to be found among the patients with labor so induced.

MATERNAL AND FETAL MORTALITY

No maternal mortality was reported. The hazards, so far as the mother is concerned, would appear minimal, but it must constantly be borne in mind that these articles present the best results, not average findings. Fetal deaths are infrequent, but not rare. Slemons ascribed the loss of one infant to the violent labor in a primipara, and remarked that this might have been an overstimulation from the pituitary extract. Guttmacher and Douglas lost seven infants, about average for the Hopkins Clinic. Two of these they charged to the conduct of labor. One died of an intrapartum infection after a latent period of fifty-two hours, and labor was promoted only after insertion of a bag, and terminated by manual dilitation of the cervix and craniotomy. The other suffered a prolapsed cord when the membranes were ruptured. A bag was inserted, and delivery later was spontaneous, but the child was still-born. Morton had three infant deaths, but does not clearly suggest that any of these were related to the induction. Vruwink had an instance of prolapsed cord with fetal death. Stern reported three fetal deaths, again without sufficient comment, although two followed stormy labors, and may be analogous to the death noted above by Slemons. Plass and Seibert found a fetal mortality of 3.09 per cent, and of the twenty-one infant deaths felt that only two, from prolapsed cords, were directly chargeable to the induction. Nine of their ten neo-natal deaths were among their twenty-nine prematures (under 2,500 grams). Mathieu and Holman give no details except that the corrected rate, after deducting prematures under 1,500 grams and congenital defects incompatible with life, was 0.8 per cent. One of their deaths was due to cord prolapse.

AUTHOR'S STUDY

The foregoing affords sufficient ground for an examination into the results obtained under less favorable circumstances. Accordingly, I have reviewed the records of inductions in my own practice, and have also searched the files of the hospitals to which I am admitted. The results are somewhat disheartening. I can, at present, make no reference to the percentage of deliveries that are preceded by induced labor, nor has it been possible to arrange morbidity comparisons. This discussion will be confined to a discussion of bad results after elective rupture of membranes, whether from failure of the induction itself or from improper selection of the mode of terminating pregnancy. In order to present the material frankly and critically, I am presenting each error of judgment as if it were my own. By thus assuming full responsibility, I hope to avoid the charge that I am holding some of my fellow practitioners up for censure.

CRITERIA FOR INDUCTION

The criteria whereby a patient may be deemed eligible for induction must be considered carefully. First, the patient must be at term if the induction be elective, or present some condition for which relief is best afforded by removing the burden of gestation. In the latter instance, all other considerations become secondary, and the determination of whether to select the vaginal or abdominal route of delivery is a matter not in question within the bounds of this paper. Suffice it to point out that, while Guttmacher and Douglas found the rupture of membranes method less hazardous than the results related by Morton[12] of using either Vorhees bags or bougies, the latter's series were largely cases of toxemia, and hence carried a higher incidence of potential disasters. Second, the presenting part must be well fitted into the pelvis. Only Plass and Seibert have ignored this matter in any considerable number of patients. Their material consisted of all patients adjudged at term who would permit induction, excepting only those with contracted pelves and malpositions. Three hundred twenty-two had induction with the presenting part floating, and in three hundred more the engagement was not complete. That only five prolapsed cords were encountered, with two

fetal deaths, would seem better fortune than should have been expected. Third, the cervix must be partially dilated, at least to a degree sufficient to permit ready access to the sac. Plass and Seibert again ignored this dictum, and, in thirty-two cases, found that digital or even instrumental dilatation was required in order to reach the membranes. Fourth, the cervix must be partially effaced, especially if the patient is a primigravida. This is somewhat of a moot point, since Slemons holds that, in multiparae, an uneffaced cervix offers no especial difficulties.

DATE OF TERM

To determine the date at which term is attained is in itself an art, not a science. Holmes puts it beautifully: "One of the mysteries of life will be unfolded when scientific knowledge tells us when pregnancy begins," and if one cannot state when gestation began, how can one know the moment of its ending unless Nature whispers, and then shouts, the information? The best available data are to be obtained from the cervix, plus the patient's history. When dilatation is checked closely, and effacement noted, labor is impending. But rectal examinations are sometimes uncertain, and the information thus obtained sometimes is erroneous. Hence it has occurred that, forgetting the menstrual record, elective induction has been attempted before the optimum time. It would seem a simple matter, when the error is discovered, to send the patient home until a more propitious moment, but, with the unexpected palpation of an undilated, uneffaced cervix, a peculiar phenomenon is manifested. Seemingly there occurs a complete crystalization of the reasoning processes, and the attendant, as incapable of thought as a pithed frog, mechanically proceeds with his original intention. In one instance, the head, only partially engaged, later was dislodged, and after fifteen hours of only indifferent labor, the cord prolapsed. Fortunately this was noted by a nurse, and, in frantic haste, the cervix was manually dilated or manually torn, version performed, and a small baby extracted alive.

Two other instances of failure to approximate term may be mentioned. In each there was a prolonged latent period. In the one, a primigravida, labor finally developed and was terminated by elective low forceps. The baby survived after incubator care for twelve hours, but would have been infinitely better off in its natural habitat for an additional three or four weeks. In the other, a multipara, effective labor never was present, and, after some forty-eight hours, intrapartum infection was evident, and from which the fetus succumbed. A Porro cesarean failed utterly to check the spread of infection, and the patient died on the fourth postoperative day of generalized sepsis.

POSITION OF THE PRESENTING PART

Failure of engagement of the presenting part has been partially discussed in the instance here reported of a prolapsed cord. No other similar event has, thus far, come to my attention in this review. It is evident, however, that this complication will be more frequently encountered if the position of the presenting part is ignored. Should induction be deemed necessary, in such cases an extra-ovular bag would at least conserve the amniotic fluid should the need for version arise.

BREECH POSITIONS

In this connection, the consideration of breech positions seems to be in logical sequence. Breeches are notoriously high in the pelvis at the onset of labor, and this factor, as well as the increased susceptibility to cord prolapse, militates against a favorable outcome. While the literature cited mentioned the performance of induction in breech presentations in twenty instances plus "many" by Mathieu and Holman, the fetal mortality was not low. Unless the position is proven by x-ray to be an uncomplicated breech, and unless this is well engaged, induction should not be considered lightly. My records reveal three cases, all primigravidae. In the first, all the requirements were evident, and labor was short and easy. In the second, the breech was a surprise, but the outcome was satisfactory. In the third, fetal distress became manifest, delivery was by cesarean, and the mother died of shock when hemorrhage at operation was neither well controlled nor well treated.

CERVIX

Difficulties incident to the condition of the cervix have been mentioned wherein the chief error lay in a false assumption of the attainment of term. With the exception of concern over the welfare of the premature infant, the same problems present themselves at term when dilatation and effacement cannot be demonstrated. With primigravidae, dilatation practically always occurs subsequent to adequate effacement, whereas among multiparae, dilatation to two or three centimeters may be present with little or no effacement. In the latter group, softness of the cervical ring may be substituted for effacement as a requirement.

The absence of these findings seemingly influenced the course of labor most markedly. These are the patients that, with spontaneous onset, require long hours of preliminary contractions before dilatation really gets under way, and rupturing of membranes will not miraculously change the normal expectation. Of approximately 325 records studied, there were twenty-seven at term in which labor lasted for over twelve hours. In every instance there was a notation of dilatation of "one finger" or less, or that the cervical tissues were firm and resistant. Sixteen of these were primigravidae, four of which were later subjected to cesarean section. The death of one, delivered abdominally because of fetal distress, has already been related. One of the three others, all of whom were operated upon because of cervical dystocia, had an exceedingly stormy convalescence. Several of the multiparae should be classed under the well known dystrophy-dystocia syndrome, and their previous behavior should have been of significance. One illustration is sufficient. This patient previously had had a labor described as of four days' duration. When the membranes were ruptured, the cervix was firm, and labor did not ensue despite five intranasal pituitary extract applica-

tions. After twenty hours, a bag was inserted, whereupon forcible contractions arose, with spontaneous delivery three and one-quarter hours later.

MATERNAL DEATHS

Maternal deaths, two in number, have been given in sufficient detail. Two fetal deaths also were encountered. One died on the third day, and autopsy showed only an atelectasis. Labor had been thought to be essentially normal. The other died during delivery, labor having been induced three weeks prematurely because of a generally contracted flat pelvis. Version was done after forceps attempts had failed, and the infant succumbed during the manipulation.

POSTPARTUM HEMORRHAGE

An increased incidence of postpartum hemorrhage also was evident. There were eleven cases estimated as of over 600 cubic centimeters, one of which required transfusion. This may be due, at least in part, to the rapidity of labor, since postpartum atony tends to occur after extremely short labors as well as those excessively long.

The point has been raised, in the literature cited, that the average length of labor is lessened. This logically should be the case if all requirements are met with. When the head is well engaged, the cervix soft and dilated two to three centimeters, rapid delivery is practically inevitable. Only Plass and Siebert, who made no attempt to assort their material, found the actual number of hours but little affected. Properly selected, the cases induced electively should include only those patients in whom labor would be relatively rapid under any circumstances. Hence the advantage of shorter labors is due, not alone to the induction. but partially to the selection of patients.

STORMY LABORS

In this connection, a word of caution should be added with the patient who previously has had a rapid, stormy labor. Induction probably will emphasize the uterine muscular reaction, and, once labor has begun, "not poppy, nor mandragora, nor all the drowsy syrups of the world" will reduce the turbulence within that abdomen without affecting adversely the chances of the babe; while, if unchecked, the violence predisposes toward the development of intracranial hemorrhage. Sedation, if it is to be effective, must be begun before the onset of labor rather than after. Here especially the technique of Mathieu and Holman is of great value.

EVALUATION BY OBSTETRICIANS

Those specializing in obstetrics are not as yet of one mind in regard to the merits of induction. Replies from members of the Pacific Coast Society of Obstetrics and Gynecology vary from active opposition to boundless enthusiasm. Six never employ this method electively; twelve have utilized rupture of membranes in fifty or fewer cases; and eleven report from 100 to 1,000 inductions. The total experience from this group is approximately 3,500. Here again difficulties are encountered, with one or more instances of each type previously recounted except maternal death. In practically all instances, mention is made that the selection was inopportune, that it occurred early in the obstetrician's experience, and that the same error in judgment would not be repeated.

It should be noted, and the matter deserves emphasis, that this is essentially a criticism of men rather than methods. In each difficulty noted, the fault lay in injudicious selection for the induction of that particular patient. The one possible increase in risk was pointed out by Slemons in his original article in discussing the single fetal death in his series. That death followed a violent labor, and, as has been remarked, these occur not infrequently. If preliminary sedation be employed before induction where dilatation has progressed to 3 centimeters, it is probable that this fault may be corrected. In any event, induction should not be undertaken lightly by the occasional obstetrical attendant. Good judgment and careful evaluation of possible risks are as necessary now as they have been in the past.

IN CONCLUSION

There are, and can be, no indications for elective induction of labor. The method proposed by Slemons has many meritorious features. The requirements are logical; the technique is simple; the results usually are most gratifying. However, contraindications exist unless (1) term has been reached; (2) the head is engaged; (3) the cervix is effaced; and (4) dilatation has begun. When one has questioned himself closely, and has satisfied himself that these requirements have been met, then, and only then, may elective induction be considered without an undue assumption of risk. Evasion of these requirements has given rise to hazards ranging from prolongation of the "latent period," difficulties with resistant cervices, emergency cesareans, and intrapartum infections, to stillbirths and maternal death. Because these avoidable difficulties have arisen, and in view of lay publicity given to planned delivery on a selected date, it seems timely to emphasize the fact that, when one induces labor, he becomes responsible for any and all troubles that may follow. After all, our main function is to assist the forces of nature. We cannot safely run counter to them.

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DISCUSSION

Henry A. Stephenson, M. D. (490 Post Street, San Francisco).—Doctor Thompson has written a most timely paper. For the past few years there has been a tendency to attempt induction of labor in patients, in which no real indication for such induction existed. Most conservative writers have given the following indications for induction of labor: (1) To save the life of the mother; (2) in certain diseased conditions of the fetus; (3) postmaturity; and (4) contracted pelves. Certainly one should be sure that a definite indication exists before attempting induction.

The requirements for induction have been outlined by Doctor Thompson, and are so well stated that no further comment need be made. The same may be said about the pitfalls attending induction.

Doctor Thompson aptly puts the crux of the situation, in stating, "When one induces labor he becomes responsible for any and all troubles that may follow."

In making the above remarks it is not my intention to detract from the value of the method of induction which he outlines. Where one has a definite indication for induction the above outlined method is indeed the best, and the least dangerous of any which have been described to date, and in my hands has given very satisfactory results.

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Donald G. Tollefson, M. D. (511 South Bonnie Brae, Los Angeles).—Rupture of the bag of waters to induce labor has become a frequent obstetrical procedure, since Slemons first reported his series. Most of the articles have mentioned only the successes. Doctor Thompson's paper is unique in that it reports certain difficulties encountered in what has appeared to be a very simple means of electing the time of delivery near term. One cannot disagree with any of Doctor Thompson's observations, but as discussants, we should emphasize their importance.

Since the adoption of this procedure, we are less concerned about dry labors, and when induction is indicated another valuable method is available. As brought out in this discussion, the question of date of term is difficult to determine. We must depend on the changes taking place in the cervix, which has been aptly described as "the preparatory stage of labor." If this does not take place before the patient is induced, we are courting disaster. If it has occurred, the onset of labor will usually be within a short time and induction will not be necessary.

Prematurity adds to fetal mortality. It is, therefore, important that induction should not be attempted until the conditions, as outlined, are present. We then can assume that maturity has been reached.

While many writers have reported that a high percentage of patients will be eligible for induction, according to these standards, it has been my experience that only a very few patients will have the requirements for elective interference. At Los Angeles County General Hospital, we have noticed a high incidence of prolonged labors, with an increase in morbidity and mortality in cases following induction before these conditions have been obtained.

Dr. Thompson's conclusions are those which any doctor who has had experience with this method can, without question, heartily endorse.

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John W. Sherrick, M. D. (350 Twenty-Ninth Street, Oakland).—In discussing the question of difficulties encountered in the induction of labor, I want to congratulate the essayist on his excellent and exhaustive presentation of the problem. Certainly, the problem of shortening labor and making it easier has not been solved.

In inducing labor we have employed a technique varied to meet the needs of the individual case. We have given up the use of quinine, believing that it adds little of value to the operation, and thus we have avoided the dangers that it may impose. Our usual procedure is the use of castor oil, to be followed in three to four hours by stripping and rupture of the membranes, and the use of repeated small doses of pituthymin or thymophysin hypodermically. Sedation is used as indicated. If there is reasonable doubt of accomplishing productive labor, we refrain from rupturing the membranes as we feel, with the author, that in such cases it does not aid materially and does increase the hazards to both the patient and her baby.

We have used this procedure electively in a large series of cases and, with one possible exception, have found it safe, effective and a material aid in shortening labor, provided we have selected our cases wisely. We have had no maternal or fetal mortality in cases so handled, and have not felt that it adds materially to our morbidity. We feel that this method is most satisfactory in well-chosen cases, but have had considerable difficulty in those poorly chosen, and, therefore, have established rather rigid requirements before resorting to rupture of the membranes.

We have chosen cases for this procedure on practically the same basis as outlined by Doctor Thompson, namely, adequate pelvic measurements, engagement of the presenting part, reasonable softness of the cervical tissues, effacement and/or partial dilatation of the cervix. Under such conditions our results have been most satisfactory. Real difficulty has been encountered only in those cases in which the cervix was not effaced and/or the presenting part unengaged. In such we have had difficulty in securing real induction of labor and in accomplishing dilatation of the cervix. Many of these cases have, after several hours of ineffective pains, been finally terminated by manual assistance in securing dilatation of the cervix, with the usual lacerations which were repaired immediately postpartum. We have had no serious untoward results, such as prolapsed cord, sepsis, etc., from such interference, but we no longer recommend induction of labor unless the requirements outlined above can be met.

In spite of Doctor Thompson's conclusions, and while cognizant of the fact that there are real hazards and that often undue publicity may arise in a given case, we still feel that this procedure is safe and effective, provided one meets the requirements stipulated.

ESTROGENIC HORMONES: THEIR CLINICAL USAGE*

By C. F. Fluhmann, M.D.
San Francisco

Discussion *by E. Kost Shelton, M. D., Los Angeles.*

THE employment of extracts made from ovarian tissue was first introduced over forty years ago. These preparations were mostly dessicated gland products administered orally, and were long the subject of much discussion. They were advocated for all types of so-called ovarian deficiencies, and never lacked enthusiastic advocates and skeptical opponents.

The advances of recent years in our knowledge of the endocrine control of reproduction have shown that such "ovarian extracts" are biologically inert, and the favorable results obtained from their usage probably should be attributed to a psychotherapeutic effect. In their place, our attention has been directed to a very interesting group of chemical substances known as "estrogenic hormones" or "estrogen."

The estrogenic hormones are capable of inducing certain changes, normally controlled by the ovaries, in the accessory genital organs of women and ex-

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perimental animals. This is manifested in their ability to counteract the atrophy that follows castration, and to induce the proliferative phases of the estrous or menstrual cycles. The most pronounced of these changes are noted in the uterus, vagina, and breasts.

The property of the estrogens to repair the postcastration atrophy of the vagina of rodents is the basis of biologic tests employed for their demonstration. The animals used are mature female rats or mice which have been castrated for one week or longer. As a result of the excision of the gonads the epithelium of the vagina undergoes a pronounced atrophy, and is represented by two layers of small cuboidal cells. The injection of sufficient estrogenic material in these animals results in an intense proliferation of the mucosa, so that in sixty hours it has assumed the appearance of a fully-developed squamous epithelium, with large non-nucleated cornified cells at the surface. The presence of these cells in scrapings or smears of the vaginal wall constitutes a positive result in the Allen-Doisy test, the procedure generally employed in clinical studies and the standardization of extracts. In the Fluhmann mucification test the same changes are employed as criteria, but they are observed in microscopic preparations of the vaginal wall instead of smears.

DISTRIBUTION

The application of such tests has shown that estrogen is not a single specific hormone of the ovary, but is widely distributed in plant and animal life. It has, for instance, been demonstrated in the blood, urine, liquor folliculi, corpora lutea, and placentae of many species; in yeast, buds of salix caprea, sugar beet, parsley, cherry, plum, wheat, rice, fish roe, hen's eggs, petroleum, lignite.

The occurrence of estrogenic hormones in women is of much interest. Blood tests in female children show that estrogens are absent up to the age of about eight years. After this time they may be demonstrated, and their appearance is coincident with the gradual development of the secondary sexual characters. During adult life there is a cyclic rise and fall of estrogen in the blood and urine which follows the events of the menstrual cycle. In typical cases the hormone increases during the early part of the cycle, and reaches a peak in the midinterval, at about the time of ovulation. Then there is usually a progressive drop in its production until the time of the menses, although occasionally a secondary rise may be present with the onset of the flow. During pregnancy, estrogenic hormones are present in tremendous quantities.

The nonspecificity of the estrogens is shown by the fact that they are present in appreciable quantities in the blood and urine of men, and of women following castration and after the menopause. This is of especial interest, and demonstrates that they have also an extragonadal source of production.

The application of estrogenic hormone tests to clinical problems has been the subject of many investigations during recent years. It is a fertile field and many interesting discoveries have been reported, but it is beyond the scope of this paper to make further reference to this aspect of the question. However, I do feel that this work is still an academic research problem, and that there is no justification for the widespread adoption of estrogenic hormone tests as a routine clinical procedure.

CHEMISTRY

The widespread dissemination of estrogens is explained by the fact that many substances have estrogenic properties; that is, they are able to induce estrous changes in the vaginae of spayed rodents. They have been found to belong to an interesting group of bodies, the phenanthrene series, which also includes cholesterol, the bile acids, ergosterol, calciferol, and the male sex hormones.

Three estrogens have been isolated and purified from the urine of pregnant women, and are of especial importance in clinical studies. The first is estrone, also known as theelin, or ketohydroxyestrin. The second is estriol, or theelol, or trihydroxyestrin. The third has been recovered in pure form from follicular fluid, and it is thought that it may be a specific product of the ovary. It is estradiol, or dihydroestrin.

STANDARDIZATION OF EXTRACTS

The clinical use of estrogens has been much hampered by the confusion arising from the "units" employed. There are few, indeed, who are not bewildered by the vast array of rat units, mouse units, biologic units, international units, and so forth.

The standardization of estrogenic hormones is conducted with the Allen-Doisy test, and either rats or mice are employed. In 1932, an international standard was adopted in London under the auspices of the Health Organization of the League of Nations. This standard consisted of 20.9 grams of pure estrone contributed by several countries, and the international unit is the quantum of activity of one-tenth gamma of this preparation. In other words, one milligram of pure extrone contains 10,000 international units.

The adoption of the international unit is a great advance, but the products of different manufacturers must be compared with each other with great hesitation. The transposition of rat or mouse units into international units is still dependent on a preliminary standardization by means of the Allen-Doisy test, and the evaluation of such units in different laboratories varies greatly.

Several commercial houses have abandoned the use of units and substituted the actual weight of the hormone in milligrams. It is possible, and certainly very desirable, that eventually such a procedure will be generally adopted, and greatly simplify the problem.

COMMERCIAL PREPARATIONS

There are now many potent commercial estrogenic hormones available in this country. They are preparations of estrone, estriol, estradiol, or derivatives of these substances. Their common sources are urine of pregnant women or pregnant mares, human placentae, and in some cases they are partly synthesized.

The estrogenic hormones are usually administered hypodermically, orally, or by local application.

1. *By injection.*—The estrogenic hormone most often used in this manner is estrone, although Progynon-B (Schering Corporation) is a benzoic acid ester of estradiol. It is supplied in ampoules, and almost always dissolved in oil in order to avoid a too rapid elimination of the hormone after injection. The dosages employed vary from 0.02 milligram (200 international units), to 5.0 milligrams. (50,000 I. U.). Among the preparations available are:*

Amniotin (E. R. Squibb & Sons).
Estrogenic Substances (Reed and Carnrick).
Estrone (Abbott).
Estrone (Eli Lilly & Company).
Progynon-B (Schering Corporation).
Theelin (Parke, Davis & Company).

2. *Oral Administration.*—The extracts used for oral administration are practically all made of estriol.† They are available in capsules, tablets, or in liquid form. Since oral administration requires much larger dosages than the hypodermic route, the preparations are correspondingly more potent, but there is less unity in standardization methods employed in this group and direct comparison is impossible.

Amniotin (E. R. Squibb & Sons).
Emmenin (Ayerst, McKenna & Harrison).
Estriol (Abbott).
Estriol (Eli Lilly & Company).
Progynon-DH (Schering Corporation).
Theelol (Parke, Davis & Company).

3. *Local Application.*—The treatment of certain vaginal lesions is preferably conducted by topical applications, and a number of suppositories containing approximately 1,000 or 2,000 I. U. each are available for this purpose.

Amniotin (E. R. Squibb & Sons).
Progynon-DH (Schering Corporation).
Theelin (Parke, Davis & Company).

In addition, there is an aqueous preparation of Theelin and one of Progynon-DH in an ointment base for topical application.

ADVERSE EFFECTS

The large dosages of estrogen which have been recommended by various authors, especially in Germany, have given rise to some fears of possible secondary adverse effects. However, the studies of Mazer and his collaborators indicated that injections of large dosages over periods of two to three months produced no appreciable changes in body weight, basal metabolism, blood pressure, blood count, coagulation and bleeding times, blood chemistry and urine.

If estrogenic hormones are used in the first half of the menstrual cycle they may cause a delay in the appearance of the subsequent menstruation, and in amenorrheic or postmenopausal women they may lead to a period of abnormal uterine bleeding.

Experimental studies have shown that under certain conditions some estrogenic substances have carcinogenic properties. For this reason, fear has been expressed that the use of estrogen in the human may have an important influence on the development of malignant tumors. However, conditions in the human are very different from those in experimental animals, and there is little reason for believing that any serious danger really exists in the employment of estrogen in therapeutic dosages.

INDICATIONS

At the present time a correct evaluation of the indications for the clinical use of estrogenic hormones is very difficult. They have been recommended for a great variety of conditions, and it is very apparent that some of these are based more on the imaginative speculations of deluded clinicians and the over-enthusiasm of high-power salesmen than on sound scientific observation. However, attention must be directed to the treatment of lesions where results can be carefully adjudged from demonstrable anatomic changes. In this group belongs the treatment of gonorrheal vulvovaginitis in children, senile vaginitis, atrophic rhinitis, and, in a somewhat similar manner, climacteric symptoms.

The treatment of *gonorrheal vulvovaginitis in children* is now successfully carried out by the use of suppositories containing approximately 1,000 I. U. of estrogenic hormone. They are introduced daily at home, and the progress of the patient is determined by weekly vaginal smears. It may be necessary to prolong the course of therapy over many weeks, but usually negative smears are obtained in about three weeks.

The *atrophic changes of the vulva and vagina which follow castration or the menopause* may produce very distressing symptoms. There may be a vaginal discharge, slight bleeding, pruritus vulvae, dysuria, and dyspareunia. The application of estrogen suppositories is very effective. Rapid relief is obtained by the daily usage of suppositories of 2,000 I. U., and improvement is often seen within the first week, although it may prove necessary subsequently to repeat the treatment.

In recent months interest has centered on the treatment of *atrophic rhinitis and ozena* with estrogenic substance. This procedure was developed by a group of investigators at McGill University, and is based on the observation that the nasal mucosa responds to estrogenic stimulation. A solution of estrogenic hormone in oil is sprayed into the nostrils twice daily, each application consisting of 200 to 300 I. U. It is reported that within a few weeks distinct improvement is noted, with a lessening of abnormal secretion and an actual favorable change in the appearance of the conchal mucosa.

The vasomotor and nervous symptoms of the climacteric, or following castration, are successfully treated in a large percentage of cases by the use of estrogenic hormones, given either orally or by hypodermic injection. They have been recommended in small dosages such as 50 to 200 I. U. by mouth two or three times a day, and increasing gradually until relief is obtained. In the hands of many observers this has proved a satisfactory plan, but it is hard to determine whether the success of

*The many trade names employed has led to much confusion, and it seems desirable to list some of the better known types available in the United States. The list, however, does not purport to be complete, nor has it been chosen discriminatingly.

†Emmenin is a product containing estriol monoglucuronide as one of its active principles, and Progynon-DH is a preparation of estradiol.

this therapy is from an actual endocrine effect or whether it is purely suggestive treatment. It is well known that favorable results can be obtained also by employing biologically inert ovarian substance or mild sedatives. On the other hand, the employment of large dosages of estrogen, such as 5,000 to 20,000 I. U. by intramuscular injection every three to four days for periods of several weeks, has resulted in improvement in severe resistant cases, and two signs indicate that an actual endocrine effect is produced. In the first place, there is a proliferation of the vaginal mucosa which can be demonstrated by the use of smears or biopsy specimens. Secondly, the function of the anterior hypophysis is modified. It is known that after castration, or during the climacteric, unduly large amounts of anterior pituitary gonadotropic hormone appear in the blood and urine. In 1930 I suggested that this phenomenon may be associated with so-called climacteric symptoms. This phase of the problem is being discussed in detail by Doctor Murphy and me in a sectional paper at this meeting. It has been shown that the gonadotropic hormone can be made to disappear by the injection of large dosages of estrogen and that this disappearance is associated with clinical improvement. The effect, however, is usually only temporary, and within a few weeks or months the hormone is again present in the blood and urine and the symptoms recur.

With the other indications which have been advanced for the clinical usage of estrogenic hormones, one enters on less certain ground. The exact reasons for their employment are not very clear, there are many spontaneous recoveries which can be wrongly accredited to the therapy, and above all, a favorable influence often can be attributed to a psychotherapeutic effect. In this category, therefore, treatment with estrogen should be regarded as still in the experimental stage.* However, three conditions deserve special consideration, namely, amenorrhea, dysmenorrhea, and periodic mastalgia.

The employment of estrogenic hormone for most cases of functional amenorrhea is not based on sound physiologic principles. The amenorrhea usually results from deficient ovarian function, and this hormone cannot stimulate the gonads. It is merely substitutive therapy, and although uterine bleeding may be produced easily it is not true menstruation, but an abnormal flow which does not necessarily recur in the months following cessation of the treatment. On the other hand, proponents of this type of therapy believe it is indicated in the presence of uterine hypoplasia. They maintain that large dosages of estrogen over long periods of time (such as 10,000 I. U. twice weekly for two to three months), produce a growth of the uterus and eventually a restoration of normal cycles.

The results obtained in the treatment of primary dysmenorrhea direct especial attention to the usage of estrogen in some cases, although the difficulty of evaluating such results makes one hesitate to accept them without reservation. The reason for employing these substances is based on the observation that periodic bleeding in hyperplasia endometrii is usually painless, and this condition is due to excessive stimulation with estrogenic hormone. It also is believed by several authors that estrogen may help to overcome the uterine hypoplasia which often accompanies dysmenorrhea. In this condition, estrogen is employed in daily oral dosages of 100 to 500 I. U. over periods of three months or more, or in larger dosages given intramuscularly during the two weeks preceding the onset of menstruation. Another method of administration is the intranasal route. This procedure is begun with the onset of the pain, and 200 I. U. of an aqueous solution is used every hour for six doses. A few drops at a time are instilled into each nostril with an eyedropper.

The condition of periodic mastalgia, or painful breasts, during the premenstruum has received considerable attention in recent years, and estrogenic hormones have been highly recommended as an effective method of therapy. It is necessary to postpone final judgment, however, since good results have been reported from biologically inert ovarian substance as well as ridiculously small amounts of potent estrogenic hormone. It is difficult to conceive that such a procedure can have a true endocrine effect. A number of investigators advocate the employment of as much as 100,000 I. U. of estrogen weekly for a period of three months in an attempt to produce an artificial inhibition of the anterior lobe hyperfunction which they believe is the causal factor.

In conclusion, attention must be directed to a definite contraindication to the use of estrogenic hormones, namely, abnormal uterine hemorrhage. Since estrogen stimulates a growth of the endometrium, its administration may result, not in cessation, but actually in an increase, of the bleeding.

The fantastic claims made for the estrogenic hormones have inevitably caused them to be regarded by many physicians with a good deal of suspicion. It is unfortunate that such is the case, but it is hoped that a sane consideration of their function in normal physiology may lead to a correct evaluation of their place as therapeutic agents.

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* The use of estrogenic hormone has been recommended for oligomenorrhea, migraine headaches, vomiting of pregnancy, toxemias of late pregnancy, induction of labor, acne, hirsutism, frigidity, climacteric hypertension, arthropathia ovaripriva.

DISCUSSION

E. Kost Shelton, M. D. (921 Westwood Boulevard, Los Angeles).—Doctor Fluhmann's comprehensive treatment of the subject leaves very little to be said by way of discussion. Coming as it does from the pen of a pioneer in gynecologic endocrinology, it is refreshing to note how clearly he has presented the use and avoided preaching on the abuse of the estrogenic substances.

As he has pointed out, the estrogenic preparations are substitutive in the same sense that insulin and thyroxin are substitutive and should be handled accordingly. It has always been difficult for me to see the rationale of treating a patient with an undeveloped uterus, ovaries, or adnexa by such means when there is a remaining hope that the patient's own ovaries may be made to function and manufacture her own estrogens. This, of course, would have to be accomplished by use of the pituitary or pregnancy prolan or other endocrine means. There is also some possibility that a dormant but potentially functioning ovary may be retarded instead of enhanced as regards development and function.

Only with the advent of the more concentrated preparations have we been able to objectively study their effect upon the body economy. The measurable presence of pitui-

tary prolan in blood and urine, signifying complete or almost complete cessation of ovarian function, as Doctor Fluhmann pointed out nearly a decade ago, and now his finding that this pituitary fraction may be made to disappear by an adequate dosage of estrin, are extremely important from many standpoints. Some of the most alarming vasomotor disturbances involving cardiac rate and rhythm marked vacillating changes in blood pressure and bizarre edemas may be handled more effectively in the light of these findings. Proper dosage in such patients is all-important, as many have received inadequate treatment, without relief, over a long period of time.

MUSCLE GRAFTS: IN THE SURGERY OF THE HEART AND LUNGS*

By H. Brodie Stephens, M.D.
AND
Harry Benteen, M.D.
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Discussion *by Albert H. Elliott, Jr., M. D., Santa Barbara; Paul C. Samson, M. D., Oakland.*

PEDICLED muscle grafts have been employed in surgery for a variety of purposes. Credit is given for such a graft by Wangensteen[1] for the closure of a persistent duodenal fistula, as well as for filling up a cavity in the femur, following curetment of a bone cyst. Dixon,[2] McNealy and Shapiro[3] recommend the employment of viable muscle grafts for the plugging of or reinforcing the suture lines in wounds of large blood vessels. Reid[4] believes that pedicled muscle flaps may be of value in the obliteration of aneurysmal sacs of blood vessels.

Abrasanhoff[5] is accredited as the first to suggest and employ successfully a pedicled muscle graft in the closure of a bronchial fistula.

We have employed viable muscle grafts for the closure of bronchial fistulas, chronic empyema cavities and, in one instance, such a graft was successfully utilized in filling up a cavity resulting from an infection in a thoracoplasty wound.

PEDICLED MUSCLE GRAFTS AS TRANSPLANTS

It would appear correct, therefore, to assume that pedicled muscle grafts are worthy transplants. They seem certainly to have a peculiar faculty to resist digestion, either from the ferments of secretion or suppuration.

The fairly recent suggestion by Beck[6] and the actual employment by him of a pedicled muscle flap to provide a new blood supply to the heart (the latter being impoverished because of coronary thrombosis or sclerosis, in many human cases), brings us to the question of the fate of such muscle transplants. Churchill[7] but recently, in a discussion on the use of transplants to close bronchial fistulas, stated it was his opinion that a muscle graft functioned merely temporarily as a plug, that the graft does not permanently fill the cavity in the sense that a dentist fills a tooth, but the graft is slowly absorbed and replaced by fibrous tissue.

The literature is sufficiently stocked with discussions upon the technical methods in the handling of pedicled muscle grafts and their clinical application, but there is a decided paucity in the histologic study of the end result. It became our advantage to study at necropsy a pedicled muscle graft which had been utilized to close the remains of a lung abscess cavity, as well as several bronchial openings, some two years before. In this instance the graft could still be grossly distinguished from the surrounding lung parenchyma; it had remained viable and had filled up what had been a considerable hole in the left lower lobe. Fibrous tissue had replaced the striated muscle for the most part, but histologically many striations were still visible. Furthermore, there were many large blood vessels, both in the substance of the graft itself and running along the surface of the graft, connecting the visceral surface of the lung to the chest wall. It was the pathologist's opinion that these large vascular connections accounted for the machine-like murmur which was audible over the region of the graft before death.

BLOOD SUPPLY OF GRAFTS

Pedicled muscle grafts would seem, therefore, to retain their bulk and viability indefinitely and, in addition, will survive in a comparatively unfavorable environment. The experimental studies of Pool and Garlock[8] further substantiate this conclusion. The final problem under discussion is that which concerns the effectiveness of such a graft as a conveyor of new blood supply. O'Shaughnessy[9] is of the opinion the great omentum would serve as the best means to provide blood to an ischemic heart, and cites convincingly the manner in which the omentum has been seen to nourish a large fibroid of the uterus, or again the Talma operation, where the omentum is utilized to shunt the portal blood through other channels. Mautz and Beck[10] recently concluded that adipose tissue has been most promising for developing new arterial connections with the coronary arteries, in their hands. These authors utilized pericardial and mediastinal fat and omentum, and are of the opinion that these fatty tissues develop connections with more regularity than when skeletal muscle is used. They further state that frequently pedicled muscle grafts are disappointing, because the pedicles become converted into scar tissue and an abundance of collateral channels fail to develop. However, in several instances, they report that excellent collateral connections were observed between the coronary arteries and the arteries of the chest wall, via the substernal muscles.

At the present time, sufficient information is not available to state whether the anastomoses through grafts can exceed the size of the normal collaterals of the heart. However, observations indicate that in the late stages of coronary arterial obstruction blood actually flows into the heart through the extracardiac connections, since it is only in severe coronary arterial obstructions that these vessels have been seen to persist and enlarge.

OMENTUM

It appears likely, from the foregoing brief discussion, that the omentum is probably superior to the pedicled muscle graft as a conveyor of new blood supply. Certainly there is not the danger of atrophy in the omental transplant which will occur

* From the Division of Thoracic Surgery, Department of Surgery, University of California, San Francisco.
Read before the General Surgery Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

TABLE 1.—*Muscle Plasties*

Type of Lesion	Total	Result			Mortality
		Healed Per Primam	Second Intention Closure	Failure	
Lung abscess with bronchial fistula	7	5	2	0	0
Infected echinococcic cyst	1	1	0	0	0
Chronic empyema with bronchial fistula	4	2	1	1	1
Chronic empyema without bronchial fistula	4	2	2	0	0
Tuberculous empyema	2	0	0	2	0
Postoperative infection in thoracoplasty wound	1	0	1	0	0
Total	19	10	6	3	1

in muscle when there is interference with the nerve supply, or even the venous circulation. Brooks,[11] in his study of Volkmann's ischemic paralysis, has demonstrated beautifully the ease with which muscle tissue can be transformed to a mass of fibrous tissue when there is marked obstruction to venous return. In the human patient, whether the added complication of opening the diaphragm will outweigh the apparent advantages of the omental graft for new blood supply, will have to be determined by the clinical experience of the future.

ISCHEMIC HEARTS

It is our regret that we have nothing more to add to the present reported experimental results regarding the use of muscle grafts to provide an increase of circulation to an ischemic heart. We feel our experience with fourteen dogs, treated in a similar manner to those of Beck and his associates, simply confirms the findings of these investigators. Their experiments have been so thoroughly and clearly presented that a repetition of the results of our small group would be superfluous. The gains from our work we feel in a sense to be purely personal. Repeated experience in surgery upon the heart of the experimental animal seems to acquaint one with the problems that will occur in the human patient, and one enters the operating room with that comfortable feeling that he has been there before.

BRONCHIAL FISTULAS

We have been satisfied with the results obtained in the use of muscle flaps to close bronchial fistulas, which latter have persisted following the drainage of a lung abscess. It is our custom to delay the plastic closure until the patient is free from cough, and the healing lung is pink and healthy. The bronchial openings are anesthetized with 10 per cent cocaine solution and the muscle flaps are then sewn snugly into the depression of the lung containing the fistulas. We take care to leave an adequate base to the muscle flap so that the muscles receive a satisfactory blood supply. Usually the nerves supplying the flap are not seen, and we make no serious effort to locate them. Since the base of the flap is customarily that portion attached to the chest wall, it is probable the nerve supply is usually intact.

OTHER DISEASES

Our results in chronic empyema of the nontuberculous type are also encouraging, and it is our intention to use muscle flaps more frequently in the treatment of this condition in the future. The two failures which occurred (Table 1) in the cases of tuberculous empyema suggest that perhaps this is one environment which is unfavorable to the muscle graft.

We have employed the muscle graft to provide a new blood supply to the heart in only one patient. This patient was 62 years of age, and had been suffering from almost constant anginal pain, the pain being present even while the patient was at rest. The operative procedure was carried out with very little shock to the patient but, unfortunately, he developed bronchopneumonia soon after surgery and expired on the third postoperative day. The omentum has been employed by us in another human case, a man of 42 years of age, who was suffering from intractable angina, with electrocardiographic evidence of coronary sclerosis. It has been but four weeks since his operation, and of course it is too early to tell the result of the procedure. It may be said, however, that the postoperative convalescence has been serene and not eventful up to date.*

* This patient died suddenly while walking on the street, approximately five months after operation. There had been little change in his condition since operation. It would seem correct to assume that omentopexy in this particular patient produced neither subjective nor objective improvement.

TABLE 2.—*Statistics of Beck and O'Shaughnessy*

Total Cases Operated	Mortality	Absolutely and Completely Relieved of Pain	Pain Relieved Less Drugs Some Working	Slight Relief	No Improvement	Too Early to Definitely Classify But All Are Improved
Beck—1937 25	8—32%	3	9	1	1	3
O'Shaughnessy—1938 15	5—33+%	6	3		1	

Table 2 shows the latest published results of Beck[10] and O'Shaughnessy.[12] Both authors are encouraged by their results, chiefly, I believe, because of the striking improvement in several of their patients.

SUMMARY

In summary, it is our belief that the following conclusions can be accepted concerning the subject under discussion.

1. Pedicled muscle grafts are worthy transplants; they retain their bulk over long periods of time, and they resist the ferments of secretion and suppuration. They are particularly useful in the closure of persistent bronchial fistulas.

2. The omentum is probably superior to the pedicled muscle graft as a conveyor of new blood supply.

3. Sufficient operations, employing either the pedicled muscle graft or the omentum, have been carried out upon the human to provide increased circulation to an ischemic heart, with encouraging results to warrant further trial with these procedures.

384 Post Street.

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DISCUSSION

Albert H. Elliott, Jr., M. D. (1421 State Street, Santa Barbara).—The field for the application of elective surgical procedures in the attempt to influence chronic progressive disease processes is, of late years, appreciably widening. Conditions heretofore regarded as residing strictly in the realm of medical therapy—hypertension, heart disease, for example—are in an experimental and tentative way being subjected to surgical intervention, which usually has, as its goal, one of two purposes, namely, to alter presumably abnormal physiological process by surgical attack upon anatomically normal structures, or to produce an abnormal physiologic state which might serve to ameliorate that resulting from the disease process itself. Splanchnic section for the treatment of hypertension is an example of the former; total thyroidectomy for heart disease, of the latter. The internist is watching these attempts with great interest, but not without some misgivings as to the soundness of the underlying premises upon which these procedures are based. There can be no doubt that many times the patient is symptomatically improved to the extent that he may even resume a fairly normal degree of activity—a result impossible of achievements by medical means alone. But the evidence would seem to indicate that in most instances the disease process itself is not stopped, or even slowed. This is particularly true of total thyroidectomy for the treatment of heart disease, and one cannot help but be chary of superimposing a disease state—myxedema—upon that already present. In my opinion these criticisms do not apply to the operation devised by Beck and his collaborators for the treatment of coronary insufficiency. That operation has a healthy experimental background which, as you have heard today, can be verified by other workers. The mechanism of coronary strangulation expressing itself in man as angina pectoris and coronary occlusion can be experimentally closely mimicked in the dog. It has been shown unequivocally that if the myocardium is partially starved for blood, vascular connections between the heart and extracardiac tissues can be established in as short a period of time as three weeks, if the subepicardial surface of the heart and the tissue bridge are in close contact. The amount of blood flowing into the myocardium through such a graft must be considerable, as the coronary blood supply may be almost, but not entirely, throttled, and the animal not only survive, but be active. Probably also the graft serves to distribute blood from healthy to ischemic myocardium. The sequence of events here—impaired coronary supply, vascular invasion of the myocardium through the graft, then coronary closure—is worthy of emphasis as it suggests that not only may a chronically insufficient coronary circulation be augmented, but also that acute coronary occlusion, ordinarily fatal, may be borne (by virtue of this), with impunity. In essence, then, this procedure constitutes not only a remedial attack upon the existing circulatory insufficiency, but perhaps insures against the catastrophe of acute coronary blockage. It would seem that the patient most likely to benefit from this operation would be the sufferer from angina pectoris — coronary narrowing — whose myocardium is yet intact, but who is certain, as I believe all such patients are, barring accidents, to develop coronary thrombosis at a future date. This type of patient is an extremely common therapeutic problem to the internist, who feels a sense of defeat as he gauges the prognosis. To judge from the protocols of Beck and O'Shaughnessey, most of their patients had suffered one or more occlusions before the operation was attempted. It is obvious that bathing a fibrous myocardium in blood would accomplish but little, hence it is surprising that their results are as good as they appear to be. I feel sure they would be better in a series of patients in whom the disease process had reached a stage analogous to that existing in the experimental animals at the time of operation. It will be extremely interesting to watch this group of operated patients. Will their lives be prolonged, and will they survive coronary occlusion in the future? Will their coronary disease progress without clinical evidence—occlusion without infarction? Will the anastomotic blood channels remain viable and patent? In this regard, the observations, by Doctors Stephens and Benteen, of patent blood channels in a graft two years old is both heartening and important.

It has been a privilege to listen to a paper dealing with a new surgical principle, the application of which is sure to find a place in the treatment of such a common and devastating malady as coronary disease.

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Paul C. Samson, M. D. (411 Thirtieth Street, Oakland).—Doctors Stephens and Benteen have outlined the subject under discussion in a very thorough manner. The thoracic surgeon, perhaps oftener than any other, is confronted with the problem of repairing large defects in body contour. Various types of plastic operations, combined with the use of muscle grafts, have been employed successfully for many years. The only recent addition to this field is the suggestion of Neuhof (J. Thor. Surg., 7:23, 1937), that free fat transplants be used. So far as I know, this work has not been confirmed. The exposition of technique is not within the scope of this discussion, except to say that, depending upon the location of the defect, great ingenuity often must be exercised by the surgeon in the

selection and treatment of his muscle graft. The constant presence of low-grade infection and of a rigid bony cage, add to the difficulties. Because of the infection, free muscle plugs cannot be used. It is absolutely essential that a pedicled muscle graft, with an adequate blood supply, be obtained, if a "take" is to be expected. The authors have indicated the various possibilities in using muscle grafts in infected fields. It is not unexpected that the presence of a mixed tuberculous and pyogenic infection prevented a good result in the author's cases. The recent report by Coryllos (Quart. Bull. Sea View Hosp., Jan., 1938), however, that he has closed tuberculous cavities in the lung by a muscle plasty, should be studied further.

In considering the surgical creation of a collateral blood supply in cardiac ischemia, there will be further controversy, undoubtedly, as to whether the omental or the skeletal muscle transplant is superior. The experimental work both of Beck and O'Shaughnessy seems to be extremely sound. In a series of autopsies I found that in several cases the omentum was too short to be pulled up through the diaphragm without greatly angulating the large bowel. For this reason I have hesitated to use the omental transplant on a patient. The Beck operation still carries considerable risk, and experiments now are being performed to see if it may be possible to divide the operation into stages. I have done pectoral muscle transplants to the myocardium (Beck operation), on two patients. The first patient was a man of sixty-two, referred by Dr. Mark Emerson of Oakland. In the past, several abdominal operations had been performed because of persistent epigastric pain. He also complained of severe intermittent chest pain with radiation down the left arm. Investigation revealed definite evidence of coronary sclerosis and probable old myocardial infarction. Operation was performed on December 13, 1937. The coronary arteries were thickened and palpable, and a large myocardial scar was present in the anterior wall of the heart near the apex. The postoperative course was stormy. At present the patient can be classified as improved, as far as his chest is concerned. He has no residual chest pain but the abdominal difficulties have continued, and their etiology is unknown.

The second patient was a woman of sixty-two years of age, referred by Dr. Hobart Rogers of Oakland. She had had two definite coronary attacks, one seven years, and one seven months prior to operation. She had been confined to bed almost continuously since the last attack. There was no evidence of congestive heart failure, but the patient was obviously a poor surgical risk. Operation was performed on March 14, 1938, and death occurred on the second postoperative day. An important finding at autopsy was the relatively firm adherence of the graft to the surface of the myocardium.

GERIATRICS*

A CONTRIBUTION OF TWENTY-FIVE CAREFULLY STUDIED PATIENTS WHO ARE ACTIVE AND IN GOOD HEALTH BEYOND EIGHTY YEARS OF AGE

By LEONARD J. BRUNIE, M.D.
Pasadena

DISCUSSION *by Robert E. Ramsay, M. D., Pasadena; Franklin R. Nuzum, M. D., Santa Barbara.*

GERIATRICS is the study or practice of the science of caring for the aged. A review of the literature teaches that this is not only an old science, but that the many scientific contributions in recent years have made it an interesting and rapidly broadening field in the practice of medicine.

MATERIAL FOR THIS STUDY

The present study has been carried on for the past two years, and is a preliminary report, presented with the hope that it will stimulate interest in the field of geriatrics, and possibly encourage some helpful suggestions as further case studies are made and added to the series. This series presents twenty-five cases—thirteen men and twelve women—active and in good health in the ninth decade of life. The studies include, in each case, careful medical, dietary and social history, physical examination, blood count, urinalysis, electrocardiogram and fluoroscopic examination of the chest. I am perfectly aware that in such a small number of cases statistical data are inaccurate, and I am also aware that, in the many facts sought after in these detailed histories, we have no controls by which to judge our deductions. However, we hope to increase the number in this series from time to time and, by a careful recording in the literature, our general deductions can be reaffirmed and revalued. This has been admirably brought out in our recent studies of the literature in this field, for on many important points all of the authors are agreed.

HISTORICAL

Longevity has always been a subject of interest to mankind. Herodius,[1] in his history written in the fifth century before Christ, refers to the presence of longevity among a milk-eating people. Cicero[2] wrote on the subject of old age, as well as did Sir Francis Bacon.[3]

In more recent times, Metchnikoff,[4] who has contributed extensively to scientific knowledge, brought out in the field of geriatrics, a book entitled "The Prolongation of Life." Unfortunately, he made an unconfirmed conclusion, namely, that longevity was dependent upon the type of intestinal flora present. Doctor Lorand,[5] of Carlsbad, in 1909 claimed to be the earliest writer on the prophylaxis and treatment of old age as a preventable chronic disease. He believed that old age was due to degeneration of the ductless glands, and that these could be favorably influenced by therapy.

Gallichan,[6] an English writer, in 1929 contributed to the field and emphasized that "overwork, worry, pecuniary anxiety and boredom are all important contributing factors of untimely aging and senescent invalidism."

Worcester,[7] in his unusually able lectures, has described the "Care of the Aged." He emphasized the psychological handling of these patients, and set forth the four cardinal hygienic requirements of senescence as "More warmth, more rest, less work and less food." He stated that diagnostic studies should be brief and simple, and at times entirely disregarded, and that these patients often need the friendly support more than the medical aid of their physicians.

Pepper,[8] in 1936, carefully outlined in his "Notes in the Field of Geriatrics" the differences between senescence, or the normal physiological aging, and senility, or the abnormal pathological aging, and suggested that disease in old age differs in many ways from disease in other periods of life; these differences being the basis upon which the science of geriatrics is developed.

Horn,[9] in 1937, in "Geriatrics as a Modern Specialty," pointed out that between the years of 1900 and 1930 there was an increase of 52 per cent in

* Read before the General Medicine Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

those individuals in the United States 60 years of age and over, as compared with a general increase in total population of only 38 per cent. He emphasized the importance of conservatism in treating the aged, and said that, as we grow older, there is a decrease in water and an increase in the calcium content of the soft tissues, with a resulting loss in resiliency.

An editorial in the *Journal of the American Medical Association*[10] states that longevity is an art as well as a science. "The art consists of practicing a reasonable adaptation to environment and adherence to the laws of hygiene, based upon a knowledge of oneself and one's needs. The mental outlook is as important as the physical aspect of living." It is desirable to "cultivate equanimity, contentment and optimism."

A most extensive statistical study in the field of geriatrics was made in Japan. This work was reported by Doctor Nakayama[11] after he had spent ten years in studying 10,000 people past 80 years of age. He reports that living in cities decreases the life span, and that aged women are more numerous than aged men. The majority of these people had long-lived relatives; they all had from three to five brothers or sisters. Most of them were in the middle class; the lower class ranked second, and the upper class ranked third. The majority proved to be the eldest son or daughter of fathers between the ages of 26 to 30 years, and mothers between the ages of 21 to 25 years. An unmarried person seldom enjoyed longevity. The aged were mostly of normal constitution, but some were corpulent, and a few were slender. They were not particular about what they ate. In summary, he concluded "that, in order to live long, one should live in the country, and the standards of living should be those of the middle class."

MEDICAL STATISTICS

According to life insurance statistics,[12,13] the average length of life today is 59.3 years for men and 62.8 years for women. In our series of cases comprising thirteen men and twelve women, the average age is 84.5 years—the men averaging 85.5 years and the women 83.5 years at the time of this writing.

AUTHOR'S OBSERVATIONS

In briefly reviewing our findings in the study of these cases, I would first like to point out that we have chosen those individuals who were found active and in good health in the ninth decade of life. I would also emphasize that the requirement to be active and in good health in the eighties has placed these cases in an entirely different group from those having passed away in their seventies. The number of cases could be greatly augmented if those in the eighth decade of life were included, but a large proportion of these patients died as a result of the degenerative diseases which were rare if seen at all in those who were active and in good health beyond 80 years of age. By "active and in good health" I mean that these individuals were driving their own automobiles, some were still working for a livelihood, and many were active in play—trap-shooting, going to the races and theater, and even dancing and golf. Most of them took genuine interest in a variety of hobbies. Mentally, they were all active and alert.

These patients were all of the white race; all of them were born in America, with the exception of three who were born in Germany. Socially, 30 per cent of these cases were in the upper class, 50 per cent in the middle class, and 20 per cent in the working class.

Heredity, without question, is the fundamental requirement for longevity. In our series there was only one individual who did not have immediate relatives—that is, parents or grandparents, brothers or sisters—living beyond 75 years.

The incidence of infection in their lives was relatively unimportant. Most of them had had the usual childhood diseases. One had a severe diphtheria at the age of 2 years. Three had pneumonia in adult life, and four had influenza at the time of the 1918 epidemic. Four gave histories of tonsillitis. An interesting finding was that 33 per cent of the group gave histories of migraine headaches occurring in earlier life, although none of them complained of more than occasional mild headaches at the present time. An interesting endocrine factor is that 60 per cent of the men had retained their sexual powers to an average age of 80 years. This would indicate that their general endocrine systems were still functioning. There was no case of syphilis and only one mild case of tuberculosis. It is interesting to note that one individual, a man, recovered from pneumonia at the age of 91 years.

SURGICAL OPERATIONS

This group had had comparatively little surgery. Surgical procedures are, however, well borne in the aged.[14] One patient had a cholecystectomy and an appendectomy at the age of 74 years. Another had a gangrenous appendix which necessitated the resection of several inches of intestine, from which she made a splendid recovery at the age of 75 years. A third patient sustained a severe injury with a pelvic bone fracture at 77 years of age. Tonsils had been removed in only two cases. Two had prostatic resections at the age of 84 years. Both are still active and in good health.

HABITS

Moderation and temperance were found to be the rule, in a study of the habits of this group, but in no sense were they reformists or faddists. They did not reveal any special dietary habits; all of them had eaten meat once a day throughout their lives. Forty per cent of the men used alcohol in moderation, and 60 per cent used tobacco. Coffee was used by 60 per cent of the group. As a rule these people were adverse to taking drugs, and only one used sleeping capsules. Only four reported difficulty in sleeping. They were versatile in their activities, but in their habits of living and personal hygiene they were moderate in all things. Thirty-six per cent had, at the time of this study, living mates, and of the remainder, 43 per cent had been married until 75 years of age or later. There was no unmarried individual, although several had no children. Walking was the chief form of exercise, several in our group averaging four miles a day.

PHYSICAL EXAMINATION

Careful physical examinations revealed that, as a group, these patients were remarkably well preserved. Hearing was good in 36 per cent. Sight was very good in 36 per cent, and all of them could see to read with the aid of glasses.

The average height for men was 67½ inches, and for women, 62½ inches. The average weight for men was 145 pounds, and for women, 118 pounds. None of the men had ever been overweight; four of the women had been approximately 20 per cent overweight for short periods in their younger lives.

The teeth were artificial in 60 per cent of the group, and one-half of those wearing artificial dentures had their teeth extracted after the age of 70 years.

The most interesting finding was the absence, in any appreciable degree, of arteriosclerosis. The circulatory systems were, as a group, good, the average blood pressure being 152 systolic over 85 diastolic. On fluoroscopic examination of the chest, 60 per cent showed the aortic shadow to be increased in density, but there was an apparent widening of the aorta in only 8 per cent of the cases. The fluoroscope did not show any appreciable cardiac enlargement; there was slight left ventricular hypertrophy in 30 per cent.

LABORATORY FINDINGS

The electrocardiograms were surprisingly normal, with little evidence of coronary disease. The heart rate averaged seventy-four beats per minute; the rhythm was regular except for auricular fibrillation in 8 per cent, and sinus arrhythmia in 20 per cent. The PR interval was prolonged in 8 per cent, the QSR interval in 12 per cent, with a maximum QRS of 0.16 seconds. It was interesting to note that in no case was there a negative T2. The S-T segment, however, showed some change from normal in 33 per cent. Sixty per cent of our cases showed some degree of left axis deviation. It is explained that this change to a left axis, which is frequent in the aged, is a result of a change in heart position from the vertical to the horizontal, as well as to muscle hypertrophy. The cause for hypertrophy is not arteriosclerosis,[15,16] but "changed metabolic processes in the old heart serve to stimulate growth. Cardiosclerosis is not marked in 'normal' old people."

The conduction system of the heart is supposed to be more or less separate in its metabolic process, in which glycogen plays the leading rôle. That this is usually in good condition is borne out by other observers[15,16] as well as by this study.

Blood count and urinalysis were routine. Twelve per cent of our patients showed a trace of albumin. Casts, mostly hyaline, were found in 32 per cent of the urinalyses. Average hemoglobin was 82 per cent, on a basis of 17 grams (Sahli method) reading 100 per cent. Anemia was not a frequent finding.

COMMENT

In conclusion, our studies so far show very little on the positive side in answer to the question of how to prolong human life.

Heredity, without question, is the most important single factor in longevity. Moderation rather than abstinence is the rule for these people. Metabolic requirements were fulfilled, but special diets, as such, played no part. Obesity shortens life, and none of these people were overweight.

Another important point is that the individuals in this group were fortunate in that they escaped severe infections in earlier life.

To me, however, the most interesting observation is that they did not develop true arteriosclerosis.

It has been pointed out[8,17] that persons in this age group develop some thickening of the medial coat of the vessel wall which does not cause the obstruction to the lumen and resulting degenerative change found in arteriosclerosis. This undoubtedly accounts for the good condition of the circulation.

While to some these may seem commonplace conclusions, it was not to attempt a solution of the problem of longevity that this paper was written, but rather to encourage further studies and exchange of information on this very important subject.

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DISCUSSION

Robert E. Ramsay, M. D. (65 North Madison Avenue, Pasadena).—This interesting address on geriatrics finds a sympathetic ear among all who have specialized in pediatrics. It is natural that those who have limited their work to the human organism in infancy and childhood should understand the desire of others to study it in old age.

The motives which actuated the founders of pediatrics were doubtless mixed, pure love of children being prominent, the fundamental interest having always been that of

preventive medicine. Doctor Brunie has mentioned the decrease in infant mortality, in which pediatrics has played a part. Much more important in our minds has been the desire so to assist in the nurture and care of the child in health and disease as to increase the likelihood of an efficient and healthy adult life and a happy old age.

Geriatrics must follow the same procedure as was followed in pediatrics—first gathering a body of facts by the study of case histories, as Doctor Brunie's address has indicated. These facts will form the basis for better understanding of the physical and mental characteristics of the elderly and improved medical treatment. There is no question as to the need for understanding, gentleness and sympathy in the care of the aged. For the young we now have schools, clinics, and countless helpful agencies, while for the old we have places of refuge, pensions, retirement funds and the like which imply that the race is run and the end is near.

But the ability to work, to create, to enjoy is not merely a matter of years. Old age is not necessarily incapacity. Too often old age is preëminently a mental state induced by misfortune, hardship or temporary illness. Elderly people can be useful and happy in the use of whatever powers they have. No one can better appraise the social, mental, and physical aspects of the elderly than the physician. Increased interest in the study of geriatrics must inevitably result in better medical care of those of middle age and react beneficially on medical treatment as a whole.

Doctor Brunie's address presents the opportunity of geriatrics, a field which will richly reward study. It is more than an opportunity. It is a duty.

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Franklin R. Nuzum, M. D. (Cottage Hospital, Santa Barbara).—Doctor Brunie is deserving of much credit for his presentation; his data are carefully assembled and accurately analyzed, while his conclusions are conservatively drawn. My discussion will have to do with a different phase of geriatrics. I wondered how many of my patients were in the older age groups—that is, from 74 years on—when they first consulted me; how many regarded themselves as well; what pathological changes were in those who were not well.

Of 6,600 private office patients, I found that 300 were 74 years old or older. These were divided into three groups; those from 74 to 79 years, inclusive; those from 80 to 84, and those from 84 years and older.

In the group, 84 years old or older, there were 29; males 19, females 10. Of this number, 70 per cent are still living, and 15 per cent are regarded as well. The chief pathological findings in those not well were arteriosclerosis, without hypertension, 32 per cent; hypertension, including arteriosclerotic Bright's disease, 26 per cent; congestive failure, 30 per cent; malignancy, gall-stones, shingles, one patient each.

In the next group, from 80 to 84, there were 66 patients: 34 males, 32 females. Of this number, 60 per cent are still living; 6 per cent are considered well. The pertinent pathological findings in this group were, arteriosclerosis, 36.8 per cent; hypertension, including arteriosclerotic Bright's disease, 37.7 per cent; angina pectoris, 13.6 per cent; congestive failure, 7.5 per cent; malignancy, 6 per cent; senility, 4.5 per cent.

In the group from 74 to 79 there were 200 patients: males 106, females 94. Of this number, 75 per cent are still living, 2 per cent are regarded as well. Of the remainder, hypertension, including 4 instances of apoplexy and arteriosclerotic Bright's disease, was present in 4.5 per cent; arteriosclerosis, in 38 per cent; senile dementia, 2.5 per cent; angina pectoris, 17 per cent; auricular fibrillation, 6 per cent; coronary occlusion, 4.5 per cent; congestive failure, 5 per cent; malignancy, 5 per cent; and pneumonia, 1.5 per cent.

In this brief summary, it is evident that in this medical practice in Southern California the sexes are almost equally divided; about 5 per cent of the total number of office patients were 74 years or older; 75 per cent of these patients are still living, having been followed for a period of several years, some of them since 1926. As was to be expected, the most frequent physical finding was generalized arteriosclerosis (this conclusion reached from a palpation of the peripheral arteries and a study of the arteries of the retina), not associated with hypertension. Second came the hypertensive group, with its associated sclerosis of the peripheral vessels, its cerebral accidents, and in many of these patients clinical evidence of arteriosclerotic Bright's disease. Evident heart disease was present in 30 per cent of the oldest group, in 21 per cent of the group from 80 to 84, and in 32 per cent of that group from 74 to 79. Malignancy averaged approximately 5 per cent. There was a scattering of various other illnesses.

The medical care of these older persons should differ from that given younger individuals, in that it is better to treat the older individual specifically and his illness secondarily. It is certainly not wise to change the lifetime habits of these older people, and to institute a new and markedly changed regimen. To quote Dr. James B. Herrick:

> The doctor has a dual function; he must be scientifically minded toward the disease, yet sympathetically minded toward the patient, feeling (and in the derivational sense of the word), sympathetic and even suffering with him. How is he to acquire that proper balance of these two seemingly conflicting elements, to the end that too much sympathy may not warp his judgment or that too scientific, even mechanistic, an attitude may not lead him to overlook the human or humane feature? This broad balance can be acquired, for it is seen in the best of our practitioners and specialists.

HEALTH PROTECTION AND CARE FOR THE LESS THAN TWO THOUSAND DOLLAR GROUP

By Nathan G. Hale, M.D.
Sacramento

THE depression has created the necessity of federal aid for millions of destitute families and, by so doing, has established a new economic control over industry and commerce.

The medical profession cannot ignore this changing condition as there now appears to be a widespread dissatisfaction with the present bargaining status between patient and physician. The problem of how to meet this change is paramount.

COMPULSORY HEALTH INSURANCE NOT ADAPTED TO THE UNITED STATES

Compulsory health insurance is not suited to our form of democratic government. Defined, it is something like this: A system that requires the employee to contribute from his wages whether sick or not. The employer is also similarly obligated. This creates a fund for sickness placed under centralized supervision, with additional government taxation to meet any financial deficiency. Out of this fund the doctor is paid usually on a contract basis. (This type of insurance does not include industrial accident insurance.)

CARE OF INDIGENTS A GOVERNMENTAL FUNCTION

Medical care of indigents or the poverty stricken has been a recognized responsibility of the government in the United States, aided by the gratuitous service of the local physicians. The effect of the depression has been to increase this number from an insignificant fraction of the population to the now alarming proportion of about 20 per cent. The many millions of unemployed make it impracticable for private charity or the private physician to carry on the economic and medical care without reimbursement from some government source.

Public hospitals have too many patients and private hospitals too few. Public hospitals are about 85 per cent filled, which is capacity, while private hospitals are 52 per cent filled. The public hospital patronage, therefore, has increased 25 per cent in the last eight years.

TYPES OF PLANS FOR MEDICAL SERVICE

Physicians have ideas as to how to bring medical service within the reach of the average American wage-earner. Some of the plans now are as follows:

1. Voluntary forms of medical insurance which offer a limited protection to a few and limit the amount of protection to those insured.
2. Fraternal associations and their method of sick relief.
3. Sick benefit funds.
4. Trade-union funds.
5. Various other forms.

All the above mentioned cater to a limited group, usually have a faulty organization, and are costly in proportion to the benefits derived.

COST OF MEDICAL CARE IN THE UNITED STATES

In the United States the cost of medical care has been estimated between $50 and $60 a year per person. Can the poor ever pay enough to cover the cost of adequate medical care? Forty-nine per cent of our families have yearly incomes of less than $2,000. Four per cent of their estimated income would amount to $22 per person, which is considered the upper limit for the less than $2,000 class to pay for medical care. The additional $38 per year would have to be obtained elsewhere adequately to care for this less than $2,000 income group. Local taxation would necessarily prove a great burden to certain communities where this group predominates. Therefore, a plan devised with a favorable outlook for the less than $2,000 group will have to contain the elementary principles of national health insurance.

The cost of medical care is increasing. Forty per cent of the gross income of the physician is spent on overhead. The physician cannot assume this added cost of medical care. He is paying the same proportion of taxes as all other citizens, and under the present method assumes responsibility for the care of this group, and its return to health and economic balance without adequate compensation.

Therefore, it becomes a necessity for the Government to aid. This can be done without jeopardizing the family pride or depriving the doctor of his individuality or producing a politically submerged physician.

AUTHOR'S PLAN AND SUGGESTIONS

The Plan: A Health Insurance Subsidy

Congress to establish a Subsidy Fund for illness; the less than $2,000 income class to borrow, a part or all, of the amount necessary, at a low rate of interest, to meet their obligation for drugs, hospital care and physician's fees. Time for payment of the obligation should be extended as conditions warrant, after an investigation of the patients; and the patient's relatives, ability to pay.

The doctor's fee in this group of cases should be set before the contract is made, as in industrial accident cases.

This less than $2,000 class to include the now so-called indigents.

The Government to have control of all hospitals that are subsidized by the Government, which would include all private as well as all public hospitals. The private hospitals are known to be only partially filled (52 per cent), while the Government hospitals are overflowing at 85 per cent. This differential would take care of thousands of beds throughout the country and not require Government expenditure for new hospitals.

If the Government subsidized the vacant beds in private hospitals it should have a local representative on the board of directors. The amount to be paid for beds in private hospitals should be similar to the sum required for the maintenance of Government hospital beds, provided the physical plants are equally good.

Finally, the Government to gradually assume control of those hospitals desiring such a procedure by first amortizing the hospital indebtedness and next acquiring the stock at its present market value.

The Government to Purchase All Drugs and Supplies at Cost Plus:

Few people realize that the sick purchase $715,000,000 worth of drugs annually, which exceeds the total earnings of hospitals and physicians annually. Less than one-third of these drugs are purchased on the advice of physicians, thus making a presumably needless expenditure of $238,000 annually. The less than $2,000 income class is prone to buy patent medicines, often hindering its physical progress and increasing the cost of its sick care in an effort to make a short cut to health. In other words, $360,000,000 annually is spent by patients for treatment after self-diagnosis, and it is not unreasonable to suppose that the less than $2,000 income class also spends its share needlessly. If they represent 40 per cent of the people, it would amount to $144,000,000. The right to purchase at cost plus all recognized or prescribed drugs and other sickness supplies would be a tremendous economic saving for the less than $2,000 class.

Free Choice of Physicians:

Free choice of physicians by all patients, with the right to change physicians as prescribed in medical ethics. This is really the Magna Charta of the patient during his illness, without which political intervention and other intrigues might become a serious detriment to the service of the sick.

Fee Payment of the Doctor:

The fee schedule to be fixed by the Government and the American Medical Association with final approval by the doctors. This simplifies the matter and assures the physician of a living income. In addition, it creates a liaison between the Government and the physician that can be mutually beneficial. Fee payment of the doctor by the Government for this group would redistribute the doctors of the country, not according to the wealth of the community as they are now distributed, but accord-

ing to the density of population. Sickness under the Government Subsidy for illness is not to be associated with relief of the economic status of the patient. It is essential to keep these separate.

There should be lay control of sick benefits, planned from previous experience gained by the methods of lodges and industrial accident reports on the subject. We, as physicians, then devote all our interests to the physicial relief, not on the patient's ability to recover money for his illness.

Physical Examination Twice Yearly:

Physical examinations required twice yearly of all the less than $2,000 income group, thus preventing extensive inroads of disease before being recognized by the patient, causing an additional economic burden necessitating more serious operative procedures or longer medical care for return to normal.

The United States Public Health Service to be used by the Government for the establishment of local health officers devoting their entire time to preventive medicine or prevention of disease by immunization and control of plagues, epidemics or other possible sources of infection.

COMMENT

Such a plan as the above must have just reason to be born and also be practical enough to exist.

Let us review the good points. If the good is better than the evil of such a plan its principle should be adopted.

1. The members of this group, the less than $2,000 income group, are not in any sense of the word charity patients, yet many, due to extenuating circumstances, are forced to use county hospital service. Under the above plan they will receive adequate care without the stigma of being a county hospital patient.

2. They will have free choice of physicians which they often do not have at present.

3. Their burden to the United States is lessened economically.

4. It eliminates from this group the middle man's profit in drugs.

5. It fills the waste space in private hospitals and relieves over-crowding in public hospitals.

6. The partially unemployed do not have to become charity patients.

7. The Government's obligation to its people is fulfilled in time of need, with reimbursement of the Government by those in this class who are financially responsible.

8. Those of this less than $2,000 group, who are healthy are not taxed for the group of unhealthy, except through Government subsidy which the entire nation has to pay.

9. The fact that indigents, after restoration to health, are to be held financially responsible for debts incurred, is important. The plan will soon classify the indigent group who are in this less than $2,000 group into the productive and nonproductive by judging their future ability to pay. There will be a definite group of nonproductive individuals who are mentally or physically incapacitated due to congenital or acquired illnesses, and for this group some definite program can then be logically outlined. As it is now, we do not have any idea how many of these incompetents we have or what we should do with them. They can pile up financial and marital obligations without restraint to the detriment of the future of our Government.

10. We have simplified the care of the sick; we have placed the burden where it economically belongs without creating a political bureaucracy.†

Medico-Dental Building.

THE VALUE OF DIET ANALYSIS IN PEDIATRIC PRACTICE*

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DIET, diet fads, and fancies have become almost a phobia with the public in general the past few years. Therefore, a review of the actual facts concerning diet and the method of determining a correct and adequate one does not seem amiss at this time.

In order to follow rapidly the methods used, let us briefly review the basic facts which we all know but which at times slip from our memories.

FOOD REQUIREMENTS

For adequate nutrition every individual has definite needs of energy foods: proteins, fats, carbohydrates; tissue-building foods; minerals; vitamins.

ENERGY REQUIREMENT FOR CHILDREN

Children and adolescents have a relatively higher requirement per pound of body weight than adults, due to the demand for growth.

Childhood energy requirement must provide for energy expenditure plus energy required for growth.

PROTEINS

Children and adolescents require 0.9 to 1.2 grams per pound of body weight, depending upon activity.

CARBOHYDRATES

About 50 to 60 per cent of the total calories should be in carbohydrates.

FATS

The total calories, minus the sum of protein and carbohydrate calories, give us the fat requirement.

†Author's Note.—This apparently is opposed to my previous policy when socialized medicine was introduced in the State Legislature several years ago. Since then there has been a rapid economic change, with political groups catering to the votes of the multitude, with medical placebos at the expense of the doctor. Therefore, some method must be evolved by the doctors which will preserve their personal relationship with the patient and give them just recompense for services rendered the group mentioned in this article.

I wish to acknowledge facts and statistics obtained from the Economic Survey of the California State Medical Association, and additional facts and data obtained from literature of the California Taxpayers' Association.

* Read before the Pediatric Section of the California Medical Association at the sixty-sixth annual session, Del Monte, May 2–6, 1937.

TABLE 1.—*Average Daily Energy Requirement for Children*

Age 1 to 19 Years		
Age Years	Calories	
	Boys	Girls
1	1,050	900
2	1,200	1,100
3	1,250	1,200
4	1,350	1,250
5	1,450	1,350
6	1,700	1,600
7	1,850	1,700
8	2,000	1,900
9	2,200	2,100
10	2,400	2,250
11	2,450	2,400
12	2,650	2,550
13	3,000	2,750
14	3,200	2,700
15	3,350	2,600
16	3,350	2,500
17	3,300	2,450
18	3,000	2,300
19	3,000	2,300

Adapted from report, Medico-Actuarial Mortality Investigation.

MINERAL REQUIREMENT

The ratio of calcium intake to intake of phosphorus is most important and should be between 1 to 1½, and 1 to 2.

Calcium

Minimum, 1010 milligrams.

Optimum, 2000 milligrams, plus.

Phosphorus

Minimum, 1980 milligrams.

Optimum, 3000 milligrams, plus.

IRON REQUIREMENT

According to Sherman, Rose and others, normal adults require 10 milligrams daily.

The most recent studies on children up to the age of six indicate an average iron requirement of 0.275 milligram per pound of body weight. To insure adequacy the diet should contain one and one-half times the minimum requirement, or 15 to 18 milligrams daily.

COPPER AND MANGANESE REQUIREMENT

The allowance should be 0.014 milligram per kilogram. The requirement is nearly always met even in the poorest diets. Children should have 18 milligrams daily.

IODIN REQUIREMENT

This is usually expressed in gammas, with one gamma equal to 0.001 milligram.

The authorities are not in agreement regarding the iodin requirement. One gamma of iodin is a very small part (one thousandth) of a milligram, and yet you will find that it is quite common to get one-half gamma of iodin in an average portion of most of our foods.

According to balance studies, the Swiss authority, Von Fellenberg, has calculated the human requirement at 14 gammas daily.

The British authorities, Orr and Leitch, place the adult daily requirement at 45 gammas.

Based on goiter prophylactic studies, the American authorities, Marine and Kimball, estimate the requirement at 2 milligrams for adolescents daily.

Based on rat studies, Thompson (Toronto) found that a level of 1280 gammas per 100 grams of diet was necessary to completely prevent thyroid hyperplasia. This study showed the iodin requirement to be greater on high calcium diets.

Also based on rat studies, the South Carolina group, Remington and associates, interpolated their findings to show that the average daily human requirement is 120 gammas. However, for safety, 2000 to 3000 gammas should be the daily requirement.

SODIUM, POTASSIUM, CHLORIN, SULPHUR

The authorities assume these are adequate in the American diet, but it is doubtful if this is true of potassium.

VITAMINS

A—One International unit is equivalent to 0.6 gammas of carotene.

Requirement

Minimum, 1500 International units.

Optimum, 7500 to 9000 International units.

B—The unit of potency of vitamin B is the Chase-Sherman unit, *i. e.*, the amount of vitamin B required to produce a gain of 3 grams per week in a B depleted rat.

Requirement

Minimum, 100 Sherman units.

Optimum, 200 Sherman units.

C—The International unit is equal to 0.05 milligram of ascorbic acid.

Requirement

Minimum, 150 International units.

Optimum, 200 International units (for infants and children).

G—The only available unit is the Sherman-Bourquin unit, which is the amount required to produce a gain of 3 grams per week in a G depleted rat.

Requirement

Minimum, 60 Sherman-Bourquin units.

Optimum, 100 Sherman-Bourquin units (in infants and children).

D—U. S. P. XI and the International unit represent the vitamin D potency of 0.025 gammas of calciferal. The Steenbach unit equals 3.37 International units.

TABLE 2.—*Vitamin Requirement Summary*

(Optimum Dietary Allowance)

	A International Units	B Sherman Units	C International Units	G Sherman Units	D International Units
Infants	7,500	100	200	100	1,070
Children	7,500	200	200	100	1,070
Adolescents	9,000	400	400	200	1,300

Requirement

Minimum, 450 International units.

Optimum, 900 International units.

The remaining vitamins have as yet no units of measurement or potency.

ACID-BASE BALANCE

The acid-base balance means the ratio between the amounts of acid-ash foods to the amount of alkaline-ash foods in the diet. (This is not to be confused with the acid-base equilibrium, p^H range, in the blood and other body fluids.) The ratio should be 1 to 3 or 4.

FUNCTIONS OF THE ACID-BASE BALANCE

1. To supply the source material for maintaining acid-base equilibrium of the body.

2. To prevent accumulation of organic acid, etc., and hence avoid acidosis.

3. To insure an adequacy of mineral.

WATER

The water requirement is four to eight glasses daily.

With these facts in mind, let us proceed to the building up of a balanced diet. (Table 3.)

That many of the diets given in textbooks on pediatrics are inadequate, is illustrated in Tables 4 and 5.

In building up a balanced diet the mother is instructed to keep a complete and accurate diet list for one week, household measurements being used. A summary is made and each food broken down into its component parts and the columns added and divided by seven. This gives a daily average, which is compared with the known requirement for the child's height, weight, and age.

The following cases have been selected to illustrate the method and value of diet analysis.

All diets were computed by use of the Di-Calator, copyrighted by M. J. Walsh of San Diego.

REPORT OF CASES

CASE 1.—P. B., female, age six years, height 44½ inches, weight 43 pounds. (Chart 7–10A and 7–10B.) This patient had been having asthmatic attacks over a period of three years. Sensitization tests had been done and all positive foods removed from her diet. Despite this the asthmatic attacks were occurring regularly every one to two weeks.

TABLE 3.—*Building Up a Desirable Balanced Diet Foundation*

Minimum for Children	Protein	Fat	Carbohydrates	Calories	Calcium	Phosphorus	Iron	Copper	Iodin	Acid	Base	Vitamin A	Vitamin B	Vitamin C	Vitamin G	Vitamin D
One pint whole milk	16.0	19.2	24.0	328	576	448	1.16	.08	32.0		11.2	1,104	88	160	192	4
One egg, 50 grams	6.7	5.3		74	34	90	1.3	.12	1.6	5.5		950	27		65	
One potato, 100 grams	2.2	.1	18.4	83	14	58	.91	.17	1.6		7.0	35	28	100	20	
One raw green vegetable, 50 grams	.6	.2	1.5	10	22	21	.35	.02	.4		3.7	250	17	30	25	
One cooked vegetable, 80 grams	1.8	.2	5.9	34	37	42	.74	.08	1.2		4.3	340	28	60		
One raw fruit, 100 grams	.4	.5	14.2	125	7	12	.5	.01	1.6		3.7	52	25	100	20	
Two slices whole wheat bread and butter (or equivalent in cereal)	5.2	21.8	24.8	324	30	96	1.54	.26	.3	1.8		1,222	80			
Total	32.9	47.3	88.8	978	720	767	6.50	.74	39.2	7.3	29.9	3,953	293	450	322	4
Add additionally for enrichment:																
One pint whole milk	16.0	19.2	24.0	328	576	448	1.16	.08	32.0		11.2	1,104	88	160	192	4
One extra fruit, 100 grams	1.3	1.3	22.0	105	9	31	.29	.21	1.6		5.6	350	38	170	35	
Total	50.2	67.8	134.8	1,411	1,305	1,246	7.95	1.03	72.8	7.3	46.7	5,407	419	780	549	8
Four ounces beef, 112 grams	33.9	6.9		205	8	144	2.00	.09	.6	11.8		18	19		100	
Total	84.1	74.7	134.8	1,616	1,313	1,390	9.95	1.12	73.4	19.1	46.7	5,425	438	780	649	8

TABLE 4.—*Example Ideal Diet for Infant One Year, Holt & McIntosh, Tenth Edition*

	Protein	Fat	Carbohydrates	Calories	Calcium	Phosphorus	Iron	Copper	Iodin	Acid	Base	Vitamin A	Vitamin B	Vitamin C	Vitamin G	Vitamin D
6 a. m.																
Milk, 8 ounces	8.0	9.6	12.0	164	288	224	.58	.04	16.0		5.6	552	44	80	96	2
10 a. m.																
Cereal, four tablespoons, one-quarter cup	1.35	.6	5.5	33	5.5	32.5	.32	.08		1.0						
Milk, 8 ounces, 240 grams	8.0	9.6	12.0	164	288	224	.58	.04	16.0		5.6	552	44	80	96	2
One slice whole wheat bread and butter	2.6	10.9	12.4	162	15	48	.77	.13	.4	.9		611	40			
2 p. m.																
Chopped meat, 2 tablespoons, 30 grams	6.4	5.1		72	2	43	.6	.03	.2	3.5		5	6		30	
Potato, 2 tablespoons, 30 grams	.7		6.1	28	5	19	.30	.06	.5		2.0	12	9	33	7	
Green vegetables, 3 tablespoons, 40 grams	.8	.1	1.3	10	27	27	1.54	.05	.6		10.8	1,500	14		40	
Milk, 6 ounces	6.0	7.1	9.0	104	216	168	.43	.03	12.0		4.1	414	32	60	72	3
6 p. m.																
Cereal, 4 tablespoons, ¼ cup cream of wheat	1.1		8.2	38	4	122	.19	.04	.2	1.2						
Milk, 8 ounces	8.0	9.6	12.0	164	288	224	.58	.04	16.0		5.6	552	44	80	96	2
One cracker	1.0	.9	7.2	41	2	20	.18	.05		.8						
Cooked fruit, 2 tablespoons, 30 grams	.1	.2	10.0	41	3	5	.12				1.5					
Total	44.05	53.7	95.7	1,021	1,143.5	1,156.5	5.79	.59	61.9	7.4	35.2	4,198	233	333	417	10
Normal requirement	24.0	47.0	132.0	1,050	1,000	1,500	9 mgs.	.16 mg.	100.0	1 to 3		7,500	200	200	100	1,000

Comments on above diet: Calcium-phosphorus ratio 1 to 1.2; phosphorus 24 per cent deficient in comparison with calcium present; iron 39 per cent deficient; vitamin D 99 per cent deficient; iodin at least 38 per cent deficient.

TABLE 5.—*A Day's Dietary for a Child of Five Years—Royster*

	Protein	Fat	Carbohydrates	Calories	Calcium	Phosphorus	Iron	Copper	Iodin	Acid	Base	Vitamin A	Vitamin B	Vitamin C	Vitamin G	Vitamin D
Breakfast																
One orange	1.2	.3	17.4	77	68	32	.78	.12	2.4		8.4	110	65	780	30	
Cooked oatmeal	2.7	1.2	11.1	66	11	65	.63	.16	.5	2.0						
One egg	6.7	5.3		74	34	90	1.3	.12	1.6	5.5		950	27		65	
One slice whole wheat bread	2.4	.2	12.4	62	13	46	.75	.13	.2	.9		11	40			
Butter, one square	.2	10.7	1.0	100	2	2	.02		.2			600				7
Milk, one six-ounce glass	6.0	7.1	9.0	104	216	168	.43	.03	12.0		4.1	414	32	60	72	3
Dinner																
Cream of pea soup	5.6	6.6	12.2	128	100	140	.68	.02	2.7		1.8		5		25	
Beef, one ounce	7.5	1.5		45	2	36	.5	.02	.2	.3		4	28	100	20	
One baked potato	2.2	.1	18.4	83	14	58	.91	.17	1.6		7.0	35	14		16	
Canned tomatoes	.9	.4	3.9	23	11	26	.6	.07	1.6		5.6	450	40			
One slice whole wheat bread and butter	2.6	10.9	12.4	162	15	48	.77	.13	.4	.9		611				
Rice pudding	4.5	3.6	13.0	98	65	130	.2	.2	.5	.3						
Supper																
Apple sauce	.6	.7	45.0	186	13	22	.56				6.7					
One slice whole wheat bread and butter	2.6	10.9	12.4	162	15	48	.77	.13	.4	.9		611	40			
Corn bread	2.3	.5	18.9	89	5	48	.23	.05	1.2	1.2						
Milk, 4 ounces	4.0	4.8	6.0	82	144	112	.29	.02	8.0		2.8	276	22	40	48	1
Total	52.0	64.8	192.1	1,541	708	1,071	9.42	1.24	33.5	12.0	36.4	4,072	313	980	276	11
					1 to 1.5					1 to 3						
Normal requirement	47.0	60.0	181.0	1,450	1,000	1,500	18.0	.18	2,000.0	1 to 3		7,500	200	200	100	1,070

Comments: Calcium and phosphorus 30 per cent deficient; iron 50 per cent deficient; iodin 98 per cent deficient; vitamin C 46 per cent deficient; vitamin D 100 per cent deficient.

TABLE 6.—*Seven-day Diet of P. B. Sex, Female. Age 6*

	Protein	Fat	Carbohydrates	Calories	Calcium	Phosphorus	Iron	Copper	Iodin	Acid	Base	Vitamin A	Vitamin B	Vitamin C	Vitamin G	Vitamin D
Apple sauce, one cup, 200 grams	.8	.1	28.4	250	14	24	1.0	.02	3.2		7.4	104	50	200	40	
Oatmeal, two and one-half cups, 500 grams	13.5	.6	55.5	330	55	325	3.15	.8	2.5	10.0						
Bean soup, 300 grams	15.9	12.6	30.0	294	150	210	1.2	.3	3.6		15.0					
Lettuce, 1,000 grams	12.0	4.0	30.0	200	440	420	7.0	.4	1.6		74.0	5,000	340	600	500	
Mayonnaise, 15 teaspoons, 75 grams	1.0	56.0	2.0	515	10	30	.4			1.0						
Bacon, 12 slices, 60 grams	21.6	27.3		345	6	129	1.8	.3	7.2	7.2					48	
Eggs, four, 200 grams	26.8	21.2		296	136	360	5.2	.48	6.4	22.0		3,800	108		260	
Sugar, 25 teaspoons, 100 grams			100.0	400												
Canned cherries, one-quarter cup, 25 grams	.3	.2	4.2	20	5	8	.1	.08	.4		1.1					
Raw apples, six, 600 grams	2.4	3.0	85.2	750	42	72	3.0	.03	9.6		22.2	312	150	600	120	
Peas, one-half cup, 120 grams	8.4	.6	20.3	120	33	153	2.52	.29	1.8		2.0	540	130		15	
Baked sweet potato, 100 grams	1.8	.7	27.4	123	19	45	.9	.15	1.6		6.7	300	28	100		
Baked squash, 100 grams	.6	.1	3.4	17	18	14	.35	.02	1.6		2.8					
Margarine, two tablespoons, 32 grams	.4	25.4		240												
Fried rabbit	23.8	3.7		130	12	232	3.2	.35	.5	10.7						
Walnuts, six, 35 grams	6.3	22.4	4.5	249	21	126	.73	.35	7.0	2.8						
Corn starch pudding, 200 grams	5.8	7.0	42.0	254	210	162	.42	.2	1.0		3.2					
Small glass grapefruit juice	1.2	.2	24.4	104	42	40	.54	.06	3.2		11.2	140		1,100	40	
Meat loaf, 110 grams	19.2	13.7	8.65	239	18	140	1.87	.18	.85	13.86		1,295	54	50	125	
Noodle soup, two-thirds cup, 160 grams	1.0	.8	2.0	22	1	12	1.0	.01	1.8	1.0						
Two hard-cooked eggs, 100 grams	13.4	10.6		148	68	180	2.6	.24	3.2	11.0		1,900	54		130	
Apricots, canned, 50 grams	.5	.2	6.7	29	7	13	.3		.8		1.9	26	13	50	10	
Celery, 80 grams	.9	.1	2.6	15	62	30	.5	.01	1.2		6.2					
Two lamb chops, 100 grams	31.0	7.5		196	11	200	1.6	.4	.5	9.6		8	9		45	
Scrambled eggs, 45 grams	4.8	4.2	.7	58	39	72	.89	.08	1.9	4.0		510	10		48	
Cream of pea soup, two cups, 400 grams	11.2	13.2	24.4	256	200	280	1.36	.04	5.4		3.6					
Canned corn, 80 grams	2.2	1.0	15.2	78	5	82	.38	.08	1.2	1.4						
One grapefruit, 200 grams	31.2	.2	24.4	104	42	40	.54	.06	3.2		11.2	140		1,100	40	
Canned pears, one cup, 200 grams	1.2	1.0	28.2	126	30	56	.70	.2	3.2		8.4					
One slice rock cod, 100 grams	18.7	.5		83	10	187	.34	.47	100.0	8.4						
Beets, 120 grams	2.0	.1	11.8	54	36	46	2.84	.24	1.8		13.0	26		60	60	
Cabbage, 40 grams	.6	.2	2.2	13	18	12	.14	.02	.6		2.4	7		140	20	
Bean soup, 100 grams	5.3	4.2	10.0	98	50	70	.4	.1	1.2		5.0					
Chocolate pudding, 400 grams	14.0	26.4	105.2	716	408	424	1.64	1.2	2.0		5.6					
One steak, four ounces, 112 grams	33.9	6.9		205	8	144	2.0	.09	.6	11.8		18	19		100	
Fig juice, 100 grams	1.4	.4	17.9	81	53	36	.79	.08	1.6		6.5	45				
Total	305.1	282.6	717.25	7,158	2,279	4,374	51 40	7.33	182.25	114.76	209.4	14,171	955	4,000	1,601	0000
One-day average	43.6	40.3	102.46	1,022	326	625	7.34	1.05	26.04	16.39	29.9	2,024	136	571	228	
					1 to 1.9					1 to 1.8						

Comments: Energy foods 36 per cent deficient; protein 10 per cent deficient; fat 40 per cent deficient; carbohydrates 49 per cent deficient; calcium 67.5 per cent deficient; phosphorus 69 per cent deficient; iron 19 per cent deficient; iodin 98 per cent deficient; alkaline foods 39 per cent deficient; vitamin A 75 per cent deficient; vitamin B 32 per cent deficient; vitamin C 25 per cent deficient; vitamin G 25 per cent deficient; vitamin D 100 per cent deficient.

TABLE 7.—*Steps in Attempting to Correct Previous Allergic Diet (P. B.)*

	Protein	Fat	Carbohydrates	Calories	Calcium	Phosphorus	Iron	Copper	Iodin	Acid	Base	Vitamin A	Vitamin B	Vitamin C	Vitamin G	Vitamin D
Daily average	43.6	40.3	102.46	1,022	326	625	7.34	1.05	26.04	16.39	29.9	2,024	136	571	228	
					1 to 1.9					1 to 1.8						
Normal requirement	48.0	67.0	200.0	1,600	1,000	2,000	19.0	.15	2,000.0	1 to 3		7,500	200	750	120	900
E. G.: Add dicalcium phosphate (60 grains, 4 drams)					1,000	820										
9 alphabet tablets					29	32	15.5	.17	3,000.0		2.0	1,500	110	150	60	450
1 A and D capsule												13,300				1,850
Totals					1,355	1,477	22.84	1.22	3,026.0	16.39	31.9	16,824	246	720	288	2,300

Approximate deficiencies: Energy foods 36 per cent deficient; protein 10 per cent deficient; fat 40 per cent deficient; carbohydrates 49 per cent deficient; calcium 67.5 per cent deficient; phosphorus 60 per cent deficient; iron 19 per cent deficient; iodin 98 per cent deficient; alkaline foods 39 per cent deficient; vitamin A 75.5 per cent deficient; vitamin B 32 per cent deficient; vitamin C 25 per cent deficient; vitamin G 25 per cent deficient; vitamin D 100 per cent deficient.

Add concentrates which will remedy the deficiencies of calcium, phosphorus, iron, iodin and vitamins A, B, C, G and D.

Diet analysis revealed the following:

	Per Cent Deficient
Energy foods	36
Protein	10
Fat	40
Carbohydrates	59
Calcium	67.5
Phosphorus	69
Iron	19
Iodin	98
Vitamin A	75.5
Vitamin B	32
Vitamin C	25
Vitamin G	25
Vitamin D	100

Corrections were made as follows: A and D capsule, one; dicalcium phosphate, 60 grains; Alphabet tablets, nine; plus increase in alkaline foods.

The composition of the Alphabet tablets is as follows:

Nine tablets contain:
1,800 U. S. P. units vitamin A
110 Sherman units vitamin B
175 International units vitamin C
900 U. S. P. XI units vitamin D
110 Sherman units vitamin G
2,500 gammas iodin
15.5 milligrams iron
.15 milligram copper
.10 milligram manganese
Also generous amounts of potassium, sodium and the trace elements.

* * *

CASE 2.—R. G., male, age 11½ years, height 59 inches, weight 73 pounds (normal 88 pounds); 15 pounds underweight.

Diet analysis:

	Per Cent Deficient
Protein	22
Fat	15
Carbohydrates	40.5
Total calories	27.5
Calcium	25
Phosphorus	45
Iron	55
Iodin	98
Alkaline food	35
Vitamin A	45
Vitamin B	59
Vitamin C	45
Vitamin G	10
Vitamin D	95

It was necessary here to increase fundamental foods as follows: Milk, one quart; add one egg daily; add whole-wheat bread or whole-wheat cereal; one citrus fruit daily; two generous servings of green vegetables; one generous-sized potato; one fruit, like bananas or apples; meat with iron, iodin, and vitamins A and D.

With these changes the patient gained 4¼ pounds in two months and 12 pounds in six months.

* * *

CASE 3.—B. W., female, age eight. Referred by dentist because of caries and poor condition of teeth. Mother also complained about slowness in gaining weight.

Diet analysis:

	Per Cent Deficient
Protein	12
Fat	25
Carbohydrates	51
Total energy	36
Calcium	30
Phosphorus	69
Iron	57
Iodin	99.5
Vitamin A	68
Vitamin B	59
Vitamin C	7
Vitamin G	adequate
Vitamin D	10

Acid-base ratio 50 per cent deficient in alkaline foods.

Corrections:

Add one pint of milk, two squares of butter, citrus fruit, one green vegetable, one potato, and six Alphabet tablets daily.

TABLE 8.—*Seven-day Diet of S. S., Age 8½, Weight Fifty Pounds; Normal Weight Sixty-two Pounds; Twelve Pounds Underweight*

	Protein	Fat	Carbohydrates	Calories	Calcium	Phosphorus	Iron	Copper	Iodin	Acid	Base	Vitamin A	Vitamin B	Vitamin C	Vitamin G	Vitamin D
Two oranges	2.4	.6	34.8	154	136	64	1.56	.24	4.8		16.8	220	130	1,560	60	
Orange juice, 400 grams	2.4	.4	28.4	156	116	64	.96	.32	6.4		18.0	280	180	2,080	80	
Four tomatoes	3.6	1.6	15.6	92	44	104	2.4	.28	6.4		22.4	2,380	112	2,080	64	
Three-quarters waffle	4.8	1.5	39.3	195	33	114	.66	.36		3.3						
Butter, 175 grams	2.1	149.1		1,393	28	28	.35		28.0			8,400				
Milk, 3,000 grams	99.0	120.0	150.0	2,070	3,600	2,790	7.2	.6	200.0		69.0	6,900	540	1,800	1,200	
Eleven slices bread	25.3	3.3	146.3	715	77	253	2.42	.99	1.1	16.5		33				
Peanut butter, 16 grams	4.7	7.4	2.7	97	13	72	.4			.7						
Sugar, 25 grams			25.0	100												
Two egg yolks	7.8	16.6		182	68	262	2.54	.06	1.6	5.5		950	28		66	
Ice cream, 200 grams	8.0	28.0	40.0	444	300	240	.42	.04	8.0		.4					
Potatoes, 200 grams	4.4	.2	36.8	166	28	116	1.82	.34	3.2		14.0	52	28		40	
Summer squash, 50 grams	.3		1.7	8	9	7	.17	.01	.8		1.4					
Cream, 45 grams	1.2	9.0	2.1	93	42	36	.09		6.0			2,160				
Cheese, 90 grams	26.1	32.4	.3	396	837	615	1.23	.15	12.0	4.8		2,400				
Beets, 40 grams	.7		3.9	18	12	16	.95	.08	.6		4.4	7			40	
Four apricots	1.1	.3	13.4	58	14	25	2.5	.18	1.6		6.1					
Spinach, 100 grams	2.1	.3	3.2	24	67	68	3.85	.12	1.6		27.0	3,675	35		100	
Ground round, 140 grams	33.9	6.9		205	8	144	2.0	.09	.6	11.8		18	19		100	
Scrambled eggs, 90 grams	9.7	8.1	1.3	116	78	143	1.79	.16	3.8	7.0		1,020	20		96	
Two ears corn	4.4	2.0	30.4	156	10	164	.76	.16	2.4	2.8						
Chocolate, 10 grams	1.3	4.9	3.0	61	9	45	.27	.25								
Two plums	.7	.2	12.4	54	20	32	.56	.04	1.6							
Spaghetti, 100 grams	2.7	.1	16.9	80	5	32	.21		2.1							
Two eggs	13.4	10.6		148	68	180	2.6	.24	3.2	11.0		1,900	54		130	
Fresh peas, 80 grams	2.8	.2	6.7	40	11	51	.84	.09	.6			180	40		5	
Lettuce, 75 grams	.9	.3	2.2	15	33	31	.52	.03	1.2		5.5	375	25	45	37	
Cream of tomato, 400 grams	12.0	30.8	28.4	436	360	304	1.52	.04	5.4		10.8					
Beets, 20 grams	.3		1.9	9	6	8	.47	.04	.3		2.2	3			20	
Carrots, 80 grams	.9	.3	7.4	37	45	37	.51	.06	1.2	8.6	8.6	1,875	10		40	
One radish	.1		.7	3	1	3	.1	.02	.2		.3					
One candy bar	4.8	21.0	30.7	331	26	127	.88	.4			1.0					
Rice krispies, 200 grams	12.6	.7	189.0	798	21	21	5.67	.42	1.05	21.0						
One slice bacon	1.8	23.0		39		11	.15	.6	.6	.6					4	
One pear	.6	.5	14.1	63	15	26	.35	.1	1.6		4.2					
Eight dried cooked prunes	.3		17.1	69	7	15	.4	.02	.8							
Asparagus, 90 grams	1.4	.2	2.6	18	20	31	.8	.07	1.2		.6	72				
Roast beef, 28 grams	7.5	1.5		45	2	36	.5	.02	.15	2.9		4	5		25	
One baking powder biscuit	1.2	1.4	7.2	47	11	15	.1		.1	.7						
Molasses, 40 grams	.8		28.0	114	86	18	2.8	.8								
Raisins, 25 grams	.6	.8	19.0	86	16	33	.72	.05	.4		8.4					
Lemonade, 200 grams	.6	.4	4.8	20	16	4	.4	.02	.96		2.8		24	340		
White sauce, 25 grams	.9	3.0	2.1	39	26	30	.7	.04	.1		.2					
String beans, 90 grams	1.8	.2	5.9	34	37	42	.74	.08	1.2		4.3	255	14			
Whipped cream, 50 grams	1.6	12.0	2.8	124	56	48	.12		8.0			2,880				
Tuns, 50 grams	13.3	5.7		104	15	150	.7	.2	50.9	5.0						
Seven-day total	328.9	484.8	982.1	9,452	6,332	6,655	56.7	7.21	372.76	95.7	228.4	36,039	1,264	7,105	2,107	000
Average daily	47.0	69.0	140.0	1,350	904	950	8.1	1.03	53.0	13.7	32.6	5,148	180	1,015	301	
					1 to 1.08					1 to 2.35						

Comments: Protein 17 per cent deficient; fat 10 per cent deficient; carbohydrates 33 per cent deficient; calories 25 per cent deficient; calcium 38 per cent deficient; phosphorus 66 per cent deficient; iron 51 per cent deficient; iodin 99 per cent deficient; alkaline food 34 per cent deficient; vitamin A 31 per cent deficient; vitamin B 60 per cent deficient; vitamin C adequate; vitamin G adequate; vitamin D 100 per cent deficient.

Case 4.—V. P., female, age 16, height 66½ inches, weight 115 pounds (average 128). Referred by a dentist for diet analysis because of dental caries, with additional complaints made by mother of exhaustion, poor appetite, under weight, and subnormal temperature.

Diet analysis:

	Per Cent Deficient
Energy foods	40
Protein	44
Fats	35
Carbohydrates	40
Calcium	48
Phosphorus	50
Iron	54
Iodin	99.5
Vitamin A	44
Vitamin B	50
Vitamin D	100

With corrected diet and rest period, this patient gained ten pounds in three months.

Case 5.—S. S., female, age 8½ years, weight 50 pounds (normal 62); 12 pounds under weight. Complaint was inability to gain weight. Had been in preventorium for six months with weight stationary. (Table 8.)

Diet analysis:

	Per Cent Deficient
Protein	17
Fat	10
Carbohydrates	33
Calcium	38
Phosphorus	66
Iron	51
Iodin	99
Alkaline food	34
Vitamin A	31
Vitamin B	60
Vitamin C	adequate
Vitamin G	adequate
Vitamin D	100

With corrected diet this patient gained two and one-half pounds in two months and four and one-quarter pounds in four months.

COMMENT

From a series of twenty-five cases, selected at random from a larger group, the following deductions may be drawn. In children's diets the amount of protein is usually deficient. The acid-base ratio is frequently out of balance. The calcium-phosphorus ratio is frequently out of balance.

In no diet has there been an adequate supply of iron, the deficiency running from 35 to 75 per cent.

In no diet has there been an adequate supply of iodin, the deficiency running from 50 to 99 per cent.

In no diet has there been an adequate supply of vitamin A, unless the patient was taking a fish-oil preparation.

All diets, unless a fish oil was taken, and barring sunshine, were 100 per cent deficient in vitamin D.

IN CONCLUSION

Diet analysis is a valuable adjunct to pediatric practice, probably its greatest usefulness being in undernutrition, allergy, and dental problem cases.

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DISCUSSION

E. Earl Moody, M. D. (829 South Alvarado Street, Los Angeles).—We are very grateful to Doctors Hough and Walsh for reminding us of some of our shortcomings. We all know better than to allow any of our cases, that are difficult to handle, to go for any length of time on deficient diets. Yet it's so easy to allow a child to drift on a diet which is not optimum, especially if the morbid condition for which the child consults us, is under control. We are also grateful to Doctor Hough for giving us such a good review of the essentials of a balanced diet. She has very clearly pointed out to us a method of diet analysis.

It is rather startling to see her analysis of diets, which have been published as being ideal and supposedly balanced, fall short of this balance when thoroughly analyzed. Perhaps these diets were not kept up to date in view of our modern knowledge of chemistry of foods, even though they were taken from very recent textbooks.

It has been our observation that children are very commonly deprived of sufficient minerals, vitamins, and proteins due to a poorly supervised diet. Such a deficiency, long continued, will bring an ultimate malnutrition, from which it would be most difficult to recover.

The object lesson of this paper is to challenge us to become more expert in our knowledge of dietetics, and to analyze more carefully the diet we offer children both in health and disease.

Helen B. Pryor, M. D. (Stanford University).—We often hear of the plight of children who are undernourished because of the poverty of their parents. We do not always realize that a child may be malnourished when he lives in the midst of plenty.

I am glad that Doctor Hough has called our attention to the fact that malnutrition exists whenever a child's body is not receiving the materials necessary to its proper growth and development. And it is not the food available that determines a child's nutritional status, but only that which is eaten and utilized.

The way to be sure that a proper balance is being maintained is to analyze the weekly diets in the manner described by Doctor Hough.

I helped with the nutrition study of the children from families on relief in San Francisco, a few years ago, and analyses of their diets frequently showed deficient protein intake, probably because protein food is expensive.

In private practice, the nutrition problems and the "hunger strikers" were overwhelmingly linear-type children. In one study, we measured all the children who were brought in because of poor appetite or refusal to eat, and found that 82 per cent of them were definitely of linear type. Analysis of the diets of these children often showed a very high proportion of fat, indicating that the mothers of these slender-built children tried to change them into broad-built children by the forcing of high fat, high calory diets.

I was convinced of the folly of overstandardization in diets, as well as in other fields, when we found by experience that linear-type children responded best to low fat and low roughage diets.

A careful analysis of diets, then, is necessary to know just what a given child is getting, and this makes it possible to adjust his food to his individual needs.

Helen Hopkins, M. D. (3875 Wilshire Boulevard, Los Angeles).—The authors have presented a method of evaluating the child's diet in relatively simple terms. Such a system could be used to advantage in those cases which show a congenital lack of interest in food and others which show decided food preferences resulting in dietary imbalance. If one is on the alert to discover food deficiencies which may develop under these circumstances, substitutions or additions may be made to the diet which would not only satisfy the child's basic physiological needs, but would make some appeal to the child. The authors have made a valuable contribution in suggesting that an exact inventory be made of the foods consumed over a given period of time. Such a study would not be necessary, however, if the child demonstrates a wholesome interest in food and if the mother follows suggestions made to her by the child's physician. I am asked almost daily, "Does my child still need to take cod-liver oil?" Such a question could be answered more convincingly if one knew the actual optimum requirements, and the child would be more apt to be supplied with the food factors needed for normal development.

MEDICAL SOCIETY MEMBERSHIP: SOME LEGAL PHASES*

Memorandum Opinion with Respect to the Power of a Medical Society to Grant or Deny Admission to Membership

Practically all of the decided cases concerning membership in medical societies involve expulsion or suspension of a member previously admitted to membership. Of course, the powers and duties of a medical society with respect to expulsion and suspension of a member are entirely different from the powers, privileges and duties relating to admission to membership. Hence, cases concerning expulsion or suspension are not helpful.

The few reported cases on the subject of admission to membership were decided many years ago and in each case unusual circumstances were present. Therefore, we will consider the general rules relating to admission to membership in voluntary associations before discussing those cases directly involving medical societies.

As a General Rule Admission to Membership in a Voluntary Association Is a Matter Within the Complete and Exclusive Control of the Association

A voluntary association has the power to enact by-laws governing the admission of members and to prescribe any qualifications it desires for eligibility to membership. 7 Corp. Juris. Section 56. The grant or refusal of membership to any applicant is a matter within the complete control of the organization acting pursuant to its by-law provisions. *Simons* vs. *Berry*, 205 N. Y. S. 442, 210 App. Div. 90; *Harris* vs. *Thomas*, 217 S. W. 1068. In other words, membership is a privilege which the society may accord or withhold at its pleasure, and a court of equity will not interfere to compel the admission of a person not regularly elected, even though rejection of his application may have been arbitrary and even though such rejection may prejudice material interests of the candidate. *Greenwood* vs. *Building Trades Council of Sacramento*, 71 Cal. App. 159, 233 Pac. 823; 7 Corp. Jur. Sec. 56-57. Thus, in the *Greenwood* case, the California District Court of Appeal held:

> The fact that one may suffer injury by reason of non-admission to membership in a voluntary association, affords no ground for relief.

* * *

Where, however, one has been duly elected to membership in an association but is arbitrarily denied admission after such election, such person acquires a legal right to membership which may be enforced by the appropriate remedy. *Hillery* vs. *Pedic Society of New York*, 179 N. Y. S. 62, 189 App. Div. 766. (In this case a negro applied for membership in a society organized to improve the practice of chiropody and was elected in accordance with the by-laws by a majority vote of the members. The chairman refused to declare him elected and at a later meeting his application was rejected, after the by-laws had been changed to provide that five adverse votes would constitute a rejection. The New York court held that the first vote constituted an election to membership which could not be reconsidered.)

* * *

The Rule that Admission to Membership Is a Matter Within the Complete and Exclusive Jurisdiction of a Voluntary Association Also Applies with Respect to Nonprofit Membership Corporations

Under Sections 595 and 598 of the California Civil Code, a nonprofit corporation composed of members may by means of regulations contained in its by-laws establish such qualifications and standards for admission to membership that it sees fit. Balentine, California Corporation Laws, 1938 Edition, pages 328-331. Hence, the fact that a medical society may be incorporated as a nonprofit corporation does not affect the applicability to it of the general rule governing voluntary associations that membership is a privilege which the society may accord or withhold at its pleasure.

* * *

Consideration of Cases Directly Concerning Medical Societies

Apparently the earliest case is *People* vs. *Medical Society of New York*, 3 Wendall 426, decided in 1830. It was there held that an initiation fee may be demanded from physicians and surgeons becoming members of county medical societies.

In New York there has been for many years a provision in the public health law under which physicians and surgeons in the several counties are entitled to meet together and form local units. The New York courts have held that this statutory provision confers upon every physician and surgeon in a county a *right* to membership in any medical society incorporated under the public health law. See *Ewald* vs. *Medical Society of County of New York*, 130 N. Y. S. 1024, 70 Misc. Reports 615.

This statutory provision is quite unusual and, of course, has the effect of limiting, so far as medical societies in the State of New York are concerned, the general rule that admission to membership is in the sole control of the societies.

The statute above referred to caused the New York court in 1857, to hold in the case of *People* vs. *Medical Society of Erie County*, 24 Barbour 570, that the power given by statute to medical societies to make by-laws and regulations relative to the admission and expulsion of members, though conferred in general terms, is not an arbitrary or unlimited power. It was further held that by-laws relative to admission of members could not be made contrary to or inconsistent with the laws of the state. Again in *People* vs. *Medical Society of Erie County*, 32 N. Y. 187, decided in 1865, it was held that a licensed physician having the prescribed qualifications for admission to the county medical society could not be excluded on the ground that he did not conform to the conventional rules of the society at a period antecedent to his application. The effect of this decision is clearly limited to the State of New York, because of the unusual statutory provisions contained in the public health law. In addition, it is quite doubtful that this case is sound law today even in New York.

In New Jersey the State Medical Association is incorporated by an act of the legislature as a quasi-public corporation. Hence, the election of applicants to membership therein is governed by the legislative act rather than by the general rules which have heretofore been stated. Thus, in *Watson* vs. *Medical Society of New Jersey*, 38 N. J. Law 377, decided in 1876, it was held that the rules governing admission to membership were to be determined by reference to the act of the legislature incorporating the state association.

In Alabama the State Medical Association is also incorporated by an act of the legislature and hence, has been held to be a quasi-public corporation. *Parke* vs. *Bradley*, 204 Ala. 456, 86 So. 28. Being a quasi-public corporation, the Alabama Medical Association may only make such rules governing admission to membership or expulsion therefrom as are consistent with the legislative acts applicable to the association.

Outside of the states of New York, New Jersey, and Alabama, no cases have been discovered in an exhaustive review of the authorities which relate to denial of admission to membership in a medical society. Quite clearly the cases in New York, New Jersey and Alabama arose because in those states specific statutes restricted the general power of a medical society to be the sole judge of admission to membership. There is no reason to believe that the decisions in New York, New Jersey, and Alabama have any force elsewhere. In the vast majority of the states, including California, where there are no statutes specifically governing admission to membership in medical societies, there can be no question but that the general rules relating to admission of membership in a voluntary association or a nonprofit association are applicable.

* Editor's Note.—The letter which follows explains why this opinion was rendered by the office of Hartley F. Peart, legal counsel of the California Medical Association:

San Francisco, October 20, 1938.

Re: Opinion Requested Concerning Legal Rules Governing Admission to Membership in a County Society.

To the Editor:—I am enclosing herewith a memorandum opinion in regard to the above subject.

The enclosed was prepared by us after receipt of your letter of October 14 and enclosed copy of letter addressed to you by Doctor Maner, Secretary of the Los Angeles County Medical Association.

We believe that the enclosed may be of interest not only to the Los Angeles County Medical Association, but to the Council of the California Medical Association.

111 Sutter Street. Very truly yours,

HOWARD HASSARD.

It is, therefore, concluded that any county medical society in California, whether incorporated or not, may provide such requirements for admission to membership as it sees fit in its by-laws and in addition, has the power to deny any application for membership, provided that the by-laws are followed, even though such denial of membership may prejudice some outside interest of the applicant.

Respectfully,

Hartley F. Peart,
Howard Hassard.

THE LURE OF MEDICAL HISTORY†

PLAGUE EPIDEMICS IN SAN FRANCISCO: HISTORICAL NOTES

By George H. Evans, M.D.
Berkeley

PART I*

WHILE the first bacteriologically identified case of plague in a human in San Francisco occurred in 1900—discovered by Dr. W. H. Kellogg, bacteriologist to the San Francisco Board of Health—it is reasonable to assume that sporadic cases had existed for several years. Justification for this assumption is found in a consideration of several factors: (1) While the Bacillus pestis had been known to be the cause of the disease since 1894, at this time the rôle of the rodent and the rat flea (Pulex Cheopis and Pulex Cerataphyllus Fasciatus) as the medium of contact was not known; (2) as a corollary of this, no preventive measures directed against the importation of rodents from plague-infected Oriental ports had been in force in San Francisco harbor; (3) San Francisco's large Oriental population had much traffic with great Oriental ports in countries where plague is endemic.

THE CONTROVERSY OVER THE EXISTENCE OF PLAGUE IN SAN FRANCISCO

The San Francisco Board of Health, with Dr. John M. Williamson as president, and Dr. J. J. Kinyoun, representing the United States Public Health and Marine Hospital Service, immediately affirmed this case and the others subsequently discovered, as bubonic plague. The business interests of the city and its press, however (for reasons which are now difficult to understand), denied the existence of such plague. Plague, in their opinion, was a disease of the Orient, where overcrowding and insanitary conditions, such as did not exist in American ports, were the only causes responsible for its presence. It was unfortunate that "big business" found three complacent physicians, all of them prominent at least in the lay community, who became their authorities and spokesmen.

RÔLE TAKEN BY MEDICAL LEADERS

The group of medical scientists who recognized these cases as a result of their pathologic and bacteriologic examinations suffered from a vilification as vicious as it was unjust. Doctors Williamson, Kellogg, and Kinyoun were the particular recipients of this abuse. The bacteriologist of the State Board of Health found plague bacilli, and lost his position and part of his back salary. Only those old enough to have known Doctor Williamson can appreciate the moral courage and determination with which he faced his responsibility, and stood with determination against the powerful interests and their short-sighted policy of suppression of the truth.

However, while these subversive interests were abusing these scientists and ridiculing their statements, charging that this was merely the efforts of "some meddlesome doctors seeking publicity," and while the Board of Supervisors refused to approve the printing of health reports and vital statistics concerning plague, the plague victims were being autopsied by Doctor Kellogg as they were found, and complete autopsy reports were telegraphed to the *Journal of the American Medical Association*; and thus the facts regarding what was now recognized as an epidemic were circulated among the medical profession throughout the land.

UNITED STATES PRESIDENT MCKINLEY'S MEDICAL COMMISSION

At this time, also, the attention of President McKinley was called to the disputants in this vital subject. He appointed a Medical Commission to investigate and report the facts. This Commission, consisting of Prof. L. F. Barker, then professor of anatomy at the University of Chicago, Prof. Simon Flexner, professor of pathology at the University of Pennsylvania, and Prof. F. G. Novy, professor of bacteriology at the University of Michigan, came to San Francisco late in January, 1901. Refusing to comment on the cultures and pathologic specimens contained in the laboratories of the City Board of Health and the Federal Service, this Commission commenced its investigations in Chinatown, the infected quarter. As a result, six definitely verified cases of plague were found and the report of the Commission was accordingly forwarded to Washington on February 28, 1901, or about a month after its arrival in San Francisco.

EXPERIENCE OF PROFESSOR NOVY'S ASSISTANT

An interesting incident in connection with the activities of this Commission serves to emphasize the facts concerning the existence of plague. Professor Novy had taken back to Ann Arbor a number of cultures procured from the cases found by the Commission in San Francisco for the purpose of manufacturing Haffkine's serum, which, according to Yersin, the discoverer of the plague bacillus in Hong Kong in 1894, possessed prophylactic properties. One of the assistants working in the laboratory with these cultures became infected and shortly presented the symptoms of pneumonic plague, the most deadly form of the infection. He ultimately recovered, following large doses of Yersin's serum, one of the rare examples of recovery from this type of the infection, where the mortality closely approaches 100 per cent.

SAN FRANCISCO AREA INVOLVED IN THE 1900 PLAGUE OUTBREAK

The 1900 epidemic was confined to about twenty blocks of the Oriental Quarter, and claimed, alto-

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of California and Western Medicine. The column is one of the regular features of the Miscellany Department, and its page number will be found on the front cover.

* In three parts.

gether, 121 victims, mostly Asiatics, of whom but eight recovered. During much of the time a strict quarantine of the infected quarter was effected by a cordon of police and a rope thrown around the involved area. Following the Federal Commission's report the city, state, and federal authorities carried out a general disinfection of Chinatown. Sporadic cases appeared from time to time, the last one occurring in February, 1904.

It must be remembered that, at this time, the rôle of the rat and the flea in the transmission of plague was unknown. It was not until 1905 that the Indian Plague Commission presented its findings and proved to the world the true method of transmission.

78 The Uplands.

(To be continued)

CLINICAL NOTES AND CASE REPORTS

MILIARY TUBERCULOSIS WITH DEATH AT AGE OF EIGHTEEN DAYS*

By Clarence M. Hyland, M.D.
and
Jay J. Palmer, M.D.
Los Angeles

DURING the first weeks of life, tuberculosis rarely kills; but there are a sufficient number of deaths to arouse interest of both obstetricians and pediatricians in the manner of the transmission of the infection. A few babies have been born in well-controlled circumstances in which sources of infection other than those present during parturition were definitely absent. In a somewhat larger number of cases environmental conditions make it impossible to rule out postnatal infection; but the character and distribution of the lesions, together with the early termination of life, strongly suggest antenatal infection. In this latter group belongs our case, the record of which follows:

REPORT OF CASE

L. E., a seven and one-half months' premature, white female infant, was admitted to the Children's Hospital, Los Angeles, on July 28, 1935, at the age of sixteen days, with the complaint of irregular breathing over a period of two days.

History.—The infant, a first child, was born at home on July 11, 1935, after an unattended precipitate labor lasting eight hours, lay exposed on the bed for approximately one hour before the umbilical cord was tied. Respiration began immediately without resuscitation. The birth weight was five pounds seven ounces. The placenta was not examined. The mother and child were taken immediately to a maternity cottage, where they remained for ten days. During this time the infant nursed at the breast at three-hour intervals. Although it was losing weight, progress was considered "satisfactory" by the attendant, and the possibility of tuberculosis in either the mother or child was not even suspected. On the tenth day postpartum, the mother was sent to the home of the grandmother. On the twelfth day the infant weighed four pounds, having lost one pound and seven ounces, and supplementary feedings of from one to two ounces of protein milk were started. (Protein milk, two tablespoons in five and one-half ounces of water, with saccharin.) On the fourteenth day postpartum, the mother was "feverish." No cough or expectoration had been noted up to this time. At 6 a. m. on the fifteenth day, the infant began suddenly to breathe irregularly and became cyanotic, cold, and limp. A near-by pediatrician was called. Stimulants were administered and respiration improved somewhat. The condition remained very critical, and twenty-six hours later the infant was brought to the Children's Hospital.

Additional family history elicited later from the mother's attendant revealed the fact that fourteen months previously she had had a "tuberculous abscess" of the chest wall, which had healed after aspiration. Roentgenologic examination of the chest at that time was "negative" for tuberculosis. The course of the pregnancy is said to have been uneventful, the attendant making the categorical statement that "no clinical evidence of tuberculosis was noted." During the year previous to the birth of the infant, a paternal uncle lived with the parents. He had pulmonary tuberculosis with cavitation, for which he had been treated at a Government hospital.

Physical examination was essentially negative except that respirations were irregular and barely perceptible. The temperature was 99.2 degrees Fahrenheit and the weight four pounds five ounces.

Laboratory Examination.—Blood: Hemoglobin, 124 per cent (Sahli Leitz); red blood count, 6,170,000; white blood count, 22,550; differential: lymphocytes, 15 per cent; polymorphonuclears, 82 per cent (majority are "stabs"); monocytes, 1 per cent; leukoblast, 1 per cent. Anisocytosis and one normoblast were noted.

Urine: One to two white cells and red cells were noted in each high-power field; otherwise examination was negative.

The clinical diagnosis was "prematurity."

Hospital Course.—The temperature rose from 99.2 to 105 degrees terminally. In spite of stimulants, the infant remained moribund and died at 12:23 a. m. on July 30, sixty hours after admission.

Autopsy.—Autopsy performed eight hours later revealed a poorly nourished, seven and one-half months' premature, eighteen-days-old Caucasian female infant, weighing 1,862 grams. Inspection of the body revealed nothing of significance. The umbilicus was healed and showed no external evidence of inflammation. The lungs were free in the hemithoraces. The pleural surfaces were smooth and shining, and a small amount of straw-colored fluid was present on each side. The entire surface of each lung showed disseminated, small, firm, rounded, white nodules 0.5 to 1.0 millimeter in diameter. The intervening pulmonary tissue was pink in color, with moderate dependent congestion. The right lung weighed 48 grams. On the cut surface throughout the tissue, small white nodules similar to those on the surface were noted from 3 to 4 millimeters apart. No areas of gross consolidation and no lesion that could be considered to be primary were found. There was no gross caseation or calcification. The pulmonary tissue between the nodules was pink in color and appeared to be air-containing. The bronchioles were moderately prominent, and the mucous membrane of the bronchi was pearly white in color. The hilar lymph nodes were 0.3 to 0.5 centimeter in diameter and were pale pink in color and normal in consistency. The left lung weighed 40 grams, and was similar in appearance and consistency to the right lung. No significant pathological changes were noted in the heart. The liver weighed 82 grams; the surface was dark red in color, smooth and shining, with a moderate amount of fine yellowish mottling; after careful search, three or four minute white nodules were noted beneath the capsule and on the cut surface. The umbilical vein appeared normal. The spleen weighed 4 grams; the tissue was dark red in color and soft in consistency; no definite white nodules were noted, and the lymphoid follicles were barely visible. The kidneys weighed 9 grams each and were essentially normal in appearance. The adrenals weighed 4 grams together and were negative. Examination of the intestinal tract revealed the Peyer's patches and solitary follicles to be moderately prominent. The mesenteric lymph glands were normal in appearance and consistency. The urinary bladder and genitalia were negative. The brain weighed 270 grams and was normal, except for moderate congestion of the meningeal vessels. The left mastoid antrum contained only a small amount of clear fluid, while in the right mastoid antrum there was a moderate amount of white

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cloudy purulent material, which on direct smear showed many pus cells and several Gram-positive cocci occurring singly and in short chains; no acid-fast bacilli were found. Culture produced Staphylococcus aureus (hemolytic type). Postmortem roentgenologic examination of the lungs, liver, and spleen failed to disclose any areas of calcification.

Anatomical Diagnosis.—The anatomical diagnosis was as follows: Acute miliary tuberculosis of the lungs; edema and congestion of the lungs; acute right purulent otitis media; cloudy swelling of the heart, liver, and kidneys; congestion of the spleen; hyperplasia of Peyer's patches of the small intestine; hyperplasia of the solitary follicles of the large intestine; and edema and congestion of the brain.

Microscopic Examination.—Microscopic examination of the lungs was reported as follows: Scattered throughout the sections are dark-staining, rounded areas 1 to 2 millimeters in diameter, made up of collections of caseous, large mononuclear cells and round cells in the alveolar lumina. No typical epithelioid cells or giant cells are noted. Several such collections make up a single nodule and in some places these are only separated by alveolar walls, which show little change except congestion of the capillaries. In other nodules the caseation is confluent and only traces of the alveolar wall can be identified. The tissue adjacent to the nodules shows little reaction and tends to be mechanically displaced or compressed. The extent of the caseous process in the nodules varies. Stain for acid-fast microörganisms on the tissue and on smears made from the nodules reveals innumerable acid-fast bacilli, morphologically identical with Mycobacterium tuberculosis, in the caseous areas both intra- and extracellular. There is a tendency to clumping of the organisms. The alveolar spaces between the nodules vary in size and contain a moderate amount of pink-staining material (edema) and an occasional reticulo-endothelial cell. The walls are moderately thickened by congestion of their capillaries. The bronchiolar lumina are for the most part clear, and the walls show no localized inflammatory change. Bronchiolar involvement in the caseous processes is rare."

Microscopic examination of the heart, liver, kidneys, spleen, intestine, adrenals, fallopian tube, uterus, ovary, bone marrow, thymus, and brain failed to disclose any tuberculous lesions. Particular attention was directed toward the liver, as three or four minute nodules had been noted in the tissue grossly. The following was the microscopic diagnosis: Acute miliary tuberculosis of the lungs; edema and congestion of the lungs; congestion and cloudy swelling of the heart, liver, and kidneys; congestion of the spleen; acute catarrhal enteritis; edema and congestion of the brain; and involution of the thymus.

COMMENT

Following the autopsy of the infant, the mother was advised to have an examination by a physician for the presence of tuberculosis. This was done, and on August 7, 1935, the clinical diagnosis of acute miliary tuberculosis was made. The diagnosis was confirmed on August 21, 1935, by roentgenologic examination of the chest. The family was advised that the prognosis was poor, and they called in a faith healer. On September 21, 1935, the onset of "stiffness of the neck" was noted. Death came on September 28, 1935, at the age of twenty-four years. Permission to do an autopsy was not obtained.

Unfortunately, the diagnosis of tuberculosis in the mother was not made before delivery, and no information regarding the placenta is available. The infant had intimate contact with the mother except during the last three days of its life. In addition, there was a probable contact with the paternal uncle, who had known pulmonary tuberculosis with cavitation. Consequently, it is not possible to rule out postnatal infection. The presence of uniformly distributed lesions of a relatively constant size throughout both lungs, and the lack of a significant number of lesions in the liver and other organs indicate that the infection was the result of a single massive inoculation with tuberculous material. That the inoculation was fairly recent is indicated by the presence of innumerable tubercle bacilli in lesions from all parts of the lungs, accompanied by a minimum amount of tissue reaction. Even where caseation had occurred, the outlines of the cells previously occupying the area could be identified. The absence of calcification is further evidence of a recent infection.

Massive inoculation might have occurred by way of the umbilical vein or through the air passages. For an hour following delivery the cord was not tied, and there was ample opportunity for the blood of the infant to pass through the umbilical artery into the traumatized placenta. After passing a ruptured tuberculous focus, the blood could return by way of the umbilical vein laden with tubercle bacilli and enter the inferior vena cava through the ductus venosus. With the closure of the foramen ovale at birth, much of the tuberculous material would lodge in the pulmonary capillary bed. A portion of the blood would, however, be expected to traverse the sinusoids of the liver before entering the vena cava.

REPORTS IN THE LITERATURE

The presence of tuberculous material in the umbilical vein was shown by Siegel and Singer.[1] Using the method of Lowenstein,[2] they cultured the umbilical blood of fifteen infants born of tuberculous mothers and found one positive result which was confirmed by culture of the infant's heart blood obtained at autopsy. That tuberculosis of the placenta is not uncommon, where careful search has been made, has been demonstrated by the results of Sitzenfrey,[3] who found tuberculous lesions in six out of twenty-six placentas (26 per cent). Schmorl and Geipel[4] examined twenty placentas and found tuberculous lesions in nine (45 per cent).

Inoculation of the fetus by way of the air passages has been reported by Gandu,[5] and Siegel.[6] Zarfl[7] suggests that the feeble respiratory motions of the fetus in utero may result in aspiration of amniotic fluid. That aspiration of amniotic sac contents is not uncommon has been shown by Farber and Sweet,[8] who studied the lungs of 124 infants that had lived from two hours to five weeks, and demonstrated by histological methods the presence of amniotic sac contents in 83 per cent of the cases. Large amounts of amniotic sac contents were present in 15 per cent of the series. Costa and Falsia[9] obtained specimens of amniotic fluid during the seventh month of pregnancy from twenty-four women with known pulmonary tuberculosis, by means of a spinal-puncture needle in-

1 Siegel, M., and Singer, B.: Amer. J. Dis. Child., 50:636-641 (Sept.), 1935.
2 Lowenstein: Quoted by Siegel and Singer.
3 Sitzenfrey, A.: Die Lehre von der kongenitalen Tuberkulöse mit Berück-sichtigung der Placentartuberkulöse, Berlin, S. Karger, 1909.
4 Schmorl and Geipel: München. Med. Wchnschr., 51:1671, 1904.
5 Gandu, G.: Ann. d'anat., path., 9:891-899 (Nov.), 1932.
6 Siegel, M.: Beitr. z. path. Anat. u. z. allg. Path., 90:503, 1932.
7 Zarfl, M.: Wien. Klin. Wchnschr., 40:1231 (Oct.), 1930.
8 Farber, S., and Sweet, L.: Am. J. Dis. Child., 42:1372-1383 (Dec.), 1931.
9 Costa, N., and Falsia, M.: La Semana Medica, 41:1156 (Oct. 18), 1934.

serted through the abdominal or the vaginal wall into the amniotic sac. Positive results were demonstrated in three cases (12½ per cent) by guinea-pig inoculation. Examination of the placentas after delivery yielded one positive result (4.76 per cent). No tuberculosis was demonstrable, however, in the three children born from the cases with tuberculous amniotic fluid. Whether the inoculation in our case was through the umbilical vein or was due to aspiration of amniotic fluid, is a matter for conjecture.

From the number of acceptable proved cases in the literature, congenital tuberculosis would appear to be relatively rare. Siegel [10] reviewed the literature in 1934 and tabulates thirty-eight cases reported since 1904, the duration of life varying from one stillborn to one aged six months. Additional cases have been reported by Couvelaire,[11] Bettinotti,[12] Voron,[13] Gandu,[5] and Chiari.[14]

Whitman [15] reviewed the literature, in 1922, and found 519 doubtful cases of congenital tuberculosis, ten of which were those showing organisms without lesions. Many additional doubtful cases have been reported since that time. According to Whitman,[15] rigid criteria are necessary to determine which cases are acceptable, the most important being the demonstration of tuberculosis in the mother, rigid isolation of infants from possible contacts, early clinical diagnosis of the disease process, and finally the demonstration of gross or microscopic lesions. Demonstration of tubercle bacilli without lesions is insufficient.

SUMMARY

1. A case of acute miliary tuberculosis of the lungs in a 7½-month premature infant, dying at the age of eighteen days, is presented.

2. Possible sources of infection are discussed.

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MECKEL'S DIVERTICULUM

REPORT OF CASE: INTUSSUSCEPTION AND GANGRENE

By HAROLD I. HARRIS, M.D.
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EACH year, according to the reports from the larger clinics in the United States, two to three per cent of the patients going to the operating table, or to autopsy, show a Meckel's diverticulum.

A similar percentage shows no evidence of any pathologic condition, while some reports show symptoms involving the diverticulum as high as three and one-half per cent.

According to Ewing, this diverticulum is found in 2.7 per cent of the population. Balfour reports fifteen cases in 10,600 autopsies.

Because of the fact that this condition is relatively rare, we are wont to lose sight of the fact that it is a definite surgical entity, and that we should ever bear it in mind as a point of differential diagnosis.

To my mind, simply to report a case because of its rarity is a waste of time and energy on the part of the author and an imposition upon the reader, unless the case serves in some manner as a means to enhance our ability to recognize or treat a similar case more readily or in a more favorable manner.

TWO PRINCIPLES

It is by reason of this propensity that I wish to make an appeal to the profession for two principles:

The first is, to direct our mind so that it may be diverted from the channel of an appendicitis; in those cases where we operate with that diagnosis, and which do not show sufficient pathology to warrant such a diagnosis; to the possibility of a diverticulitis.

We are too frequently satisfied with the thought that we have erred in our diagnosis. The appendix is removed and a cursory routine examination is made, which usually is not inclusive for a Meckel's diverticulum.

The patient makes an uneventful recovery. Some time later the patient is again taken ill with what seems to be similar to the attack of appendicitis, for which the patient had been operated upon before. At this time the attack is blamed upon adhesions, or a perityphlitis, or an enteritis, or colitis; or if the patient happens to be a female the pelvic organs are accused of being the offenders.

Dr. Albert O. Jackson of Jasper, Alabama, in *Industrial Medicine* of August and September, 1936, No. 9, p. 439, on the subject, "Meckel's Diverticulum," states: "In the cases developing inflammation (of the diverticulum) and gangrene, the symptoms are almost identical with appendicitis, and this mistaken diagnosis is almost always made since, of all the acute conditions of the abdomen, appendicitis is by far the most common."

My second appeal is that we become diverticulum conscious. Every abdomen that we open should include in our routine examination a meticulous inspection of the last three or four feet of the small bowel.

It is seldom that we expect gall-bladder or spleen pathology in making a diagnosis of appendicitis or pelvic inflammatory disease; yet we include these organs in our routine examinations, while a region which is associated with the small bowel, and which has its proximity to the appendix that Meckel's diverticulum has, is overlooked. I feel quite confident in saying that were we to become diverticulum conscious, we would frequently find the cause of many obscure abdominal pains.

That a Meckel's diverticulum may be the seat of malignancy is quite well established. Those cases are rare, and very difficult to diagnose preoperatively. They are often found during an exploratory laparotomy or from symptoms arising from some complications.

COMMENTS ON THE LITERATURE

Dr. W. T. Liccione of Mount Vernon, New York, writing on "Malignant Tumors of Meckel's

10 Siegel, M.: Am Rev. Tuberc., 29:297, 1934.
11 Couvelaire, A., and Lacomme, M.: Bull. Soc. d'obst. et de gynéc., 21:660 (Nov.), 1932.
12 Bettinotti, S., and Sammartino, R.: La Semana Medica, 40:1434 (April 27), 1933.
13 Voron, Pigeaud, and Pizerra: Bull. Soc. d'obst. et de gynéc., 20:283 (April), 1931.
14 Chiari, H.: Virchows Arch. f. path. Anat., 285:779, 1932.
15 Whitman, R. C., and Green, L. W.: Arch. Int. Med., 29:261, 1932.

Diverticulum," in the *American Journal of Surgery,* October, 1936, p. 101, states that Ewing, Balfour, Hicks, Kadinski, and Crile have all reported malignant tumors of Meckel's diverticulum. I feel that this type of tumor might also be diagnosed preoperatively were we to concentrate on this section of the intestine to a more marked degree.

It is with no uncertain terms that many authors have emphasized and proved the fact that Meckel's diverticulum frequently contains gastric mucosa, which is often associated with peptic ulcer and perforation. These ulcers are subject to spontaneous healing, as are those of the stomach and the duodenum.

Dr. Donnell B. Cobb of Goldsboro, North Carolina, in *Annals of Surgery,* May, 1936, p. 747, reports several cases of peptic ulcer.

How misleading the gastric syndrome can be when one is looking for pathology in the stomach and none can be found! This lesion, too, could be more frequently localized if we were to concentrate more upon frequent examination and inspection of this part of the alimentary tract.

I am wont to confess that there are a number of cases that I recall where I wish I could reopen and examine the last three feet of the ileum. There are a number of these that come to my mind that were diagnosed as ulcers of the stomach, clinically, but which showed no positive x-ray findings, and which did not clear up by diet or medication. The appendix was removed and we prayed for recovery, or at least amelioration of the symptoms, but no such good fortune was evident.

There are numerous cases of obstruction reported, with the usual symptoms of obstruction, and which upon laparotomy showed an involvement of Meckel's diverticulum. Dr. A. C. Jackson states in his thesis: "Those cases that develop intestinal obstruction have the classical symptoms of this condition, and are unlike intussusception in that there is no palpable tumor and there is no mucus and blood in the stools showing up after the other symptoms are in evidence."

REPORT OF CASE

The case I am about to report was diagnosed as acute appendicitis. The patient, a white boy, American; age, fifteen.

History.—Two days previous to entering the hospital, the boy went to the Y. M. C. A. to swim. He went home, ate lunch, and then went out to play. About the middle of the afternoon he became ill. He complained of pain (generalized over the abdomen), vomiting, no temperature, no rigidity. The vomiting stopped, but the pain continued, and by the second day had localized in the right quadrant low down, and did not change its location.

Examination.—After the second day he was finally brought to the hospital, at which time I saw him. Physical examination revealed a young male, white, about fifteen years of age, his countenance in a state of pain, and complaining of pain in the right lower quadrant.

The entire physical examination was negative, except the rigidity and tenderness in the right side. Pulse rate was 120. Blood pressure: systolic, 120; diastolic, 80. Respiration, 32. Temperature, 98.

Urine showed a faint trace of albumin, positive for acetone and no acetic acid. Microscopic examination revealed a few pus cells and a few epithelial cells.

White cell count showed 7,200 leukocytes, 74 per cent polynuclears, 18 per cent lymphocytes, and 7 per cent large mononuclears.

Examination by systems showed no abnormal findings.

Surgical Procedure.—A mid-right rectus incision was made about three inches in length and about two-thirds of the incision below and one-third above the umbilicus, through the skin and superficial fascia. Hemostasis was applied. The anterior sheath of the rectus was opened, and the rectus muscle was displaced medially. Skin towels were applied. The posterior sheath of the rectus and the peritoneum were opened together. A considerable amount of serosanguinous fluid was evacuated. The cecum was located and delivered. The appendix appeared normal, but covered with a Jackson's membrane.

Jackson's membrane was cut and the appendix released. The appendix was untwisted and the meso-appendix clamped, cut, and ligated. The base of the appendix was doubly clamped and the base then tied; Pachenstacker suture inserted, appendix severed, stump treated with phenol and alcohol. Stump was turned in and Pachenstaker tied and cut.

A search was then made to determine the cause of the fluid and symptomatology.

All the organs were examined and appeared quite normal. The cecum was reëxamined, but it was soft and not distended. A closer examination of the ileocecal junction showed the normal continuity missing, and lack of mesentery in the region of this portion of the ileum; also this section of the ileum appeared to be twisted upon itself.

An attempt was then made to extricate the ileum from the cecum, but this could not readily be done, so an examination of the ascending colon was then made. A mass was located in the hepatic flexure and extending into the transverse colon.

The mass was expressed from above down, according to the Hudson maneuver. After about two feet of the ileum had been expressed, the normal ileocecal junction was then noted. But about 18 inches from the ileocecal junction there was a depression in the wall of the ileum, with a corresponding mass on the inside. Upon further manipulation, part of the mass was expressed, which showed a gangrenous intussusception Meckel's diverticulum, about two centimeters in diameter. A large area of the ileum was very dark in color and eroded in different areas. After a considerable length of time, using a hot towel, the majority of the intestine resumed a nearly normal color, with the exception of a few areas of ecchimosis into the substance of the intestine. The area about the diverticulum was examined, and the diverticulum was amputated, but in closing this particular area, due to the fact that the ileum was slightly narrower than normal at this junction, there was hesitancy about leaving the intestine in this condition for fear of a secondary obstruction. This area, about three inches in length, was then resected, the stumps of the resected area were closed over, clamped, and secondary Lambert sutures used to cover the primary sutures, the angles being reinforced with several interrupted sutures. A peristaltic lateral anastomosis was made of the two sections, using clamps and anastomosing about six centimeters of the intestine, leaving about one and one-half centimeter in each end. The posterior seromuscular suture was a continuous suture of No. 0 chronic catgut, intestinal suture. This was inserted after the traction sutures on each end were placed. The serosa was then opened about one-quarter centimeter from this suture and reflected. The mucous membrane of the intestine was next opened, and a posterior Robert suture, uniting all layers of the small intestine, continuing on back to the original starting point. At this point the clamps were released, and the sutures brought anteriorly with a Mikulicz suture until reaching the anterior portion toward the terminal closure and at this point reverted to an ordinary Furrier's suture. The posterior seromuscular suture was then continued on the anterior wall, and the Lambert suture was used as a third line of closure. The angles were reinforced and the traction suture removed. The clamps were removed, as was the towel between the segments underneath. Clean towels and gloves were used at this stage. The abdomen was then closed in layers. Two Penrose drains were inserted, one into the pelvis and one into the trough of the ascending colon. The peritoneum was closed with No. 2 plain catgut sutures in four stages, using continuous sutures at this point. The fascia was closed by interrupted catgut sutures, three tension sutures,

a figure-of-eight was applied, and skin clips were used to close the skin.

The boy was returned to bed in poor condition.

Intravenous medication, Murphy drip, and cardiac stimulants were given. The following day his temperature went to 102 degrees, pulse 152, respiration 32. The patient was restless, moaning, and the pulse was irregular. Next day the pulse continued high, and the patient was restless. Intravenous medication was continued. The patient was irrational. The dressings were saturated with serosanguineous material.

The afternoon of the second day found the boy irrational. The pulse was 150, and the temperature went to 104 degrees; it dropped slightly that night, but the following day the temperature went to 105 degrees, then dropped to 103 degrees, again rose to 104½ degrees, and on the fourth day it dropped to 100 degrees. For about a week following this, his temperature ranged from 101 degrees to normal, and finally found the normal range until his recovery.

The first ten days were very stormy, but following this he rapidly regained in strength.

In the past year the boy has grown more vigorously; his general health has much improved. He has gained considerably in weight, and his gastro-intestinal tract has been functioning normally.

IN CONCLUSION

1. In making a diagnosis of appendicitis we should always attempt to eliminate diverticulitis.

2. In every acute abdominal condition diverticulitis should be included in differential diagnosis.

3. We should become Meckel's diverticulum conscious, and include its examination in all laparotomies.

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SCLERODERMA AND SCLERODACTYLIA: THEIR TREATMENT WITH FERMENTS AND TISSUE EXTRACTS*

By Saul S. Robinson, M. D.
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DURING the past few years important investigations by Joseph Sellei, [1, 2, 3, 4] of Budapest, have tended to show that scleroderma and sclerodactylia are two different disorders. Clinical, pathologic, and therapeutic studies have been performed to make this distinction. The difference in the response of scleroderma and sclerodactylia, respectively, to ferment and tissue extract therapy have been of especial value in the differentiation.

SIGNS AND SYMPTOMS

Scleroderma verum includes the diffuse, circumscribed, linear and morphoea forms of the disorder. Clinically, scleroderma is associated with little or no subjective symptoms, and trophic lesions are absent in the lesions. All types of true scleroderma show pathologic changes in the cutis and subcutaneous connective tissues, and respond favorably to treatment with ferments derived from the stomach, the duodenum, and the pancreas. These ferments must usually be given over long periods of time, and result in the indurated scleroderma plaques becoming softened and slowly resorbed. Functional disturbances of the pancreas can be found in scleroderma from the positive reaction in the atoxyl lipase resistance test. This test is negative in sclerodactylia. The etiology of scleroderma is, therefore, considered to be a ferment disturbance of the pancreas and the skin.

Sclerodactylia, or acrosclerosis, as Sellei prefers to name the disorder, is characterized by the primary symmetrical involvement of the hands, the feet and the face. Vasomotor changes are found especially in the hands and feet, and consist of local syncope and local asphyxia associated with pain in cold weather. Trophic disturbances manifested by tissue shrinkage and ulcerations occurring at the finger tips are also found. The tissue shrinkage and skin contraction on the face produce a mask-like appearance. When scleroderma verum involves the hands, it spreads from the arm and forearms to the back of the hand and the fingers, and does not primarily involve the hands and the fingers as in sclerodactylia. Telangiectasia and involvement of the heart and the aorta are also frequently associated with sclerodactylia, and are absent in true scleroderma. Sclerodactylia responds to the vasodilators found in tissue extracts, and the muscle and skin extracts have especially been used with great benefit. Ferment therapy does not influence sclerodactylia objectively, although subjective improvement is reported.

ETIOLOGY

The etiology of sclerodactylia is considered to be an angiotrophoneurosis, due to disease of the sympathetic nervous system. It is believed that the direct cause of sclerodactylia is a "chemical substance" or endocrine gland disturbance involving the thyroid, parathyroid and suprarenal glands.

THERAPY

The ferment therapy of scleroderma: Fresh pancreatic ferments such as amylase, lipase, and trypsin, are given one hour before each meal in tablet form. The dosage is three tablets before breakfast, two tablets before luncheon, and two tablets before dinner. The total daily pancreatic tablet dosage is thus seven tablets. Instead of tablets, raw pancreas may be given in the dosage of one hundred to two hundred grams daily. Sellei recommends that the raw pancreas be served at breakfast in warm boullion or mixed with potato puree. The pancreas ferment therapy can be supplemented by gastric and duodenal ferment tablets, taken in the dosage of two tablets twice daily. Liver-extract tablets and injections may also be given with the above therapy. Months to years of continuous treatment with ferments are necessary for beneficial results in scleroderma.

The tissue extract therapy of sclerodactylia: Vasodilators, such as acetylcholin, padutin, and muscle and skin extracts are given for a period of three to six months. Sharpe and Dohme tissue extract No. 568, given in the initial dosage of one cubic centimeter subcutaneously, and followed by three cubic centimeters twice a week, has proved to be of great value in the treatment of my cases of sclerodactylia.

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* From the Department of Dermatology, Cedars of Lebanon Hospital, Los Angeles.

1 Sellei, J.: Arch. f. Dermat. u. Syph., July, 1932.
2 Sellei, J.: Dermat. Ztschr., June 2, 1931.
3 Sellei, J.: München Med. Wchnschr., Oct. 7, 1932.
4 Sellei, J.: Brit. Journ. Dermat. and Syph., 46:523, 1934.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

CANCER OF THE SKIN

I. PATHOLOGY

William E. Costolow, M. D. (1407 South Hope Street, Los Angeles).—Cancer of the skin may be divided, from a practical standpoint, into two large pathological groups—the keratinizing and the nonkeratinizing epitheliomas.

The keratinizing epitheliomas are the squamous-cell carcinomas. They are characterized by the presence of adult squamous cells, hornification and pearl formation. Clinically, these lesions occur in two different types: the proliferative or papillomatous type, and the ulcerative or infiltrating type. The latter is the more dangerous. The squamous-cell carcinomas metastasize widely and rapidly, depending upon the degree of malignancy as determined by the proportion of young anaplastic cells present. The low grade or adult type of squamous-cell carcinoma, with pearl formation and marked keratinization, would theoretically be classed as radioresistant. However, as the growths are on the surface, the radioresistance is not of great clinical importance, as doses large enough to destroy the growth can be administered. The more anaplastic types, composed almost entirely of young, actively growing cells, are very radiosensitive and may disappear after treatment with comparatively small radiation dosage. The clinical course of the squamous-cell type is more rapid than the nonkeratinizing. A small high-grade primary squamous lesion may present extensive distant metastasis.

The keratinizing tumors usually appear below the angle of the mouth, trunk and the extremities, but may appear at any place on the body.

The nonkeratinizing group comprises several types arising from the various appendages of the skin, as sweat glands, sebaceous glands, hair matrix, and the typical basal-cell type which develops from the basal cells of the Malpighian layer of the skin.

The basal cell or rodent ulcer type is of quite common occurrence. Frequently this lesion appears in elderly individuals, located on the face, neck, scalp, and around the eyes or ears. The growth is slow and has often been present for a number of years before aid is sought. Occasionally, edges will heal spontaneously. Early lesions are often covered by a crust with a granular appearing, bleeding surface underneath. The more advanced lesions may show depressed, ulcerated centers with elevated, pearly edges. In advanced stages the basal-cell growths infiltrate the underlying tissues irregularly, leaving isolated islands of cells irregularly placed with respect to the overlying original lesions. (It is this fact which often causes failure in treatment, the surface lesion being superficially destroyed by surgery or irradiation, and the deeper islands allowed to remain.)

In advanced stages these lesions, although they do not metastasize, infiltrate extensively, causing destruction of muscle, cartilage, and bone.

It has been an often-repeated theme, handed down in dermatological and cancer literature, that basal-cell growths are more amenable to treatment by either surgery or radiation than the squamous-cell type. As the basal-cell growths do not metastasize, there is some justification for this belief; but as basal-cell growths, due to their infiltrating nature, are so prone to recur locally if superficially treated, our viewpoint indicates that all of these lesions should be treated in the same manner—adequately and thoroughly, regardless of what method of treatment is used.

The adenoid cystic type of carcinomas, arising from the skin appendages, are mixtures of both squamous and basal-cell elements. The clinical course of these lesions depends largely upon whether the predominating type of cell is basal or squamous. Microscopical differentiation is the only positive method for accurate diagnosis of these lesions—this is equally true in relation to all other types of skin cancer.

The melano-epithelioma group of skin cancer is a type which occurs less frequently; it is the most dreaded, due to the almost certain fatal termination. Present-day opinion agrees with Masson's conclusion, that these growths arise from neural end-organs in the skin. Both pigmented and nonpigmented growths appear in both round and spindle-cell formation, and are very malignant, usually occurring on the skin, but occasionally in the eye or other structures. They are notoriously resistant to radiation, which would tend to confirm their neurogenic origin, as we know that all nerve tissue is very radioresistant.

A shiny, black, smooth nevus is the usual site of origin of these growths—enlargement and growth of these moles ofttimes appearing after a single trauma or after repeated irritation. At times the growth remains localized, gradually infiltrating and extending in the lymphatics, and then breaking into the blood stream with widespread metastasis to all organs. In other instances, a primary lesion, so small as to be overlooked except by most careful examination, may immediately enter the blood stream and produce extensive metastasis.

* * *

II. PROGNOSIS

H. J. Ullmann, M. D. (1520 Chapala Street, Santa Barbara).—As practically all cancers have a curable stage, and cancer of the skin becomes visible and possible of diagnosis well within this stage, the prognosis should be excellent. Unfortunately there are several factors present today that prevent the optimum 100 per cent cures. One is

the ignorance of the patient, who thinks because the warty growth or ulcer is painless and apparently has shown a repeated tendency to heal, delays seeking advice until regional glands are involved or bone invaded. The second is the ignorance of the physician who first sees the lesion and advises neglectful waiting because he does not recognize its potential malignancy, or tries "healing salves" or the even worse superficial cauterization with the desiccating spark or silver nitrate until the increased rapidity of growth caused by these ministrations places it beyond control. The third, also due to the ignorance of the physician, is inadequate or improper treatment of the lesion at any stage.

The percentage of cures is increasing and will increase as the public, and I regret to say especially the profession, become familiar with the seriousness of what they now look upon as a minor wart or superficial ulceration, and the prime necessity for proper adequate prompt treatment.

There is no excuse for less than a perfect prognosis in the common basal or squamous-cell epitheliomas of the skin when properly and adequately treated by either surgery or radiation in a reasonably early stage. This applies to lesions on the ears and eyelids as well.

The malignant melanoma, the cancer arising in a nevoid or pigmented mole, has a somewhat different prognosis. Here the prognosis depends entirely upon whether the primary lesion has been removed completely by wide surgical excision before metastasis has occurred or not. If metastasis has occurred, the prognosis is hopeless, as death will follow general visceral involvement within a few months to a year—rarely longer. If metastasis has not occurred the patient is cured. Inadequate removal, sparking or superficial cauterization is useless, and always is followed sooner or later by general metastasis.

What has been said concerning these commoner forms applies equally well to the rarer. But it must be understood that the entire discussion is confined to cancer that is primary in and of the skin and its appendages, and does not apply to metastatic lesions primary in other organs or tissues.

To recapitulate: cancer, primary in the skin, when treated in a reasonably early stage by adequate proper methods, either surgical or radiological, offers almost a perfect prognosis. The failures are partly due to ignorance or neglect on the part of the patient. Unfortunately, a high percentage of failures is due to frank ignorance or neglect on the part of the profession, and in the light of our present knowledge is inexcusable.

* * *

III. TREATMENT

Laurence Taussig, M.D. (384 Post Street, San Francisco).—In the treatment of cancer of the skin certain factors are of paramount importance. The first and most essential consideration is the complete destruction of all abnormal cells. Partial or incomplete removal may increase the grade of malignancy of the neoplasm, either hastening its local spread or speeding its dissemination to other portions of the body. If incomplete removal has no other bad effect, it delays the cure, necessarily increasing the amount of scarring. The second point is the production of the least possible amount of scarring consistent with complete removal. Third, the most economical and rapid method of treatment should be utilized. Fourth, the method of treatment chosen should be one with which the operator is proficient.

There are two kinds of skin cancer. The basal-cell epithelioma is slow growing, does not metastasize, and responds more readily to various types of therapy than does the squamous-cell epithelioma. The latter grows more rapidly, and is apt to metastasize to the local lymph nodes. It is generally possible to differentiate between these types clinically, but at times even the expert dermatologist errs in making this differential diagnosis. It is, therefore, evident that treatment should be capable of curing the more malignant type of growth.

Many methods of treatment have been proposed for these lesions, and most of them, correctly used, produce a high percentage of cures, provided the lesions are first seen at a relatively early period in their development. Surgical excision, radiation therapy, thermic or chemical destruction, and various combinations of these procedures have proved effective. Each of the mentioned methods is the treatment of choice in special instances.

For the great majority of these cases I prefer the use of the curette followed by electrodesiccation. This consists in anesthetizing the lesion by infiltrating the surrounding skin with two per cent procain, then removing as much of the tumor as possible with a small, sharp curette. Following this the area is treated by electrodesiccation. A dry eschar is formed which separates in about two weeks, and complete healing is accomplished in six weeks. The advantages of this method are: (1) Its simplicity and cheapness. (2) The fact that the extent of the growth can be determined more accurately by the curette than by any other means. (3) Sufficient material is usually available for microscopic examination. (4) It is equally applicable to basal cell and squamous-cell epitheliomas. The chief disadvantage is that the scar is apt to be somewhat more prominent than that which occurs following radiation therapy, but this scar improves with time, while the radiation scar is apt to develop increasing atrophy, telangiectasia, keratoses, and even radiation cancer in the course of a number of years. The advantage over surgical excision consists in the fact that the least possible damage is done to surrounding normal tissue. In the case of an aged patient with a rather extensive growth, radiation therapy is likely to be the method of choice because its disadvantages are in this instance far outweighed by its advantages. In some instances the location of the lesion may incline our choice toward radiation treatment. This is especially true of basal-cell lesions located on the borders of the lids. These are often radiosensitive and any other destructive method may result in a particularly bad cosmetic result. It must be remembered that once a given area of skin has been radiated, a certain amount of permanent damage has been done which does not disappear with the immediate radiation re-

action. In the treatment of malignant new growths by radiation the total dosage is necessarily close to the highest possible toleration dose for the normal tissue. Further radiation at any later time may give rise to extensive destruction. Therefore, any subsequent radiation should be undertaken only by one who is expert in its use and who is able to obtain the complete details of previous treatment. In certain instances of extensive epithelioma which has been ineffectively treated, surgery of the most radical type may be indicated in order to pave the way for future or even immediate plastic work. Squamous-cell epithelioma metastasizes to local lymph nodes sooner or later. The only satisfactory treatment for metastases of this type is surgical removal of the nodes, perhaps followed by radiation of the area. Radiation alone rarely results in more than palliation. In general, radiation following surgical or thermic destruction of skin lesions does not increase the percentage of cures. Radiation of lymph areas that may become secondarily involved does not appear to prevent metastases.

Deaths Following Elixir of Sulfanilamide—Massengill: VIII.—About a year has passed since *The Journal* first announced the deaths which followed the administration of Elixir of Sulfanilamide, prepared and sold by the S. E. Massengill Company of Bristol, Tennessee. Preliminary tests at that time showed the poisonous fluid to consist essentially of 40 grains of sulfanilamide to the fluidounce of a menstruum containing approximately 72 per cent of diethylene glycol by volume, with flavoring. Week by week the number of deaths increased, eventually to more than seventy-five. Within two weeks after the first editorial was published, the American Medical Association Chemical Laboratory had confirmed the preliminary tests and reports were published under its auspices, showing that the toxic ingredient was diethylene glycol. Maps were also published indicating the area in which the detail men of the Massengill Company had promoted the elixir to members of the medical profession. Recently an extensive report in *The Journal* by Geiling and Cannon detailed the results of extensive studies of pharmacologic and pathologic effects following the ingestion of diethylene glycol or the Elixir of Sulfanilamide—Massengill. During the first few weeks of the tragedy the United States Food and Drug Administration traced all shipments and removed them from the market. Federal inspectors also traced deaths reported in local communities. There was close coöperation between the Government agencies and the headquarters of the American Medical Association. The publicity issued by *The Journal* warned the public; otherwise the number of deaths might have been higher. Had the medical profession followed the Council on Pharmacy and Chemistry, these tragedies would not have occurred: first, because the Council had consistently refused to accept, and to this day has not accepted, any liquid preparation of sulfanilamide, as there has been no evidence of usefulness and stability; second, because no product of the S. E. Massengill Company ever stood accepted for inclusion in New and Nonofficial Remedies. Had all physicians "followed the Council" or had the manufacturer followed the reasonable procedure of investigating the product before putting it on the market, nearly a hundred lives might have been saved. It will be recalled that the Secretary of Agriculture stated that the elixir had been prepared without any testing whatever other than that for flavor; that the total shipments amounted to 633. The number of deaths reported by Government investigators as due to the "elixir" totaled close to a hundred.

The only basis of action under the Food and Drug Act, as pointed out by Secretary Wallace, was the allegation that the word "elixir" implied an alcoholic solution, whereas the product was a diethylene glycol solution—notwithstanding the fact that there was evidence of danger from internal administration of diethylene glycol, prior to the marketing of Elixir of Sulfanilamide—Massengill.

To all such tragedies there is an aftermath. The unwarranted carelessness on the part of a pharmaceutic house awakened Congress and officials of the Government to the necessity of taking action to protect the public. Congress passed a bill providing that no new drug or any modifications of old drugs may be placed on the market until the entire formula has been submitted to the Food and Drug Administration of the United States Department of Agriculture and the firm licensed to market the drug. Congress further enacted the long overdue Food and Drug Act, with somewhat awkward enforcement provisions. The Food and Drug Administration retains supervision over the product itself and over the labels and circulars accompanying the trade package. Claims made by other means, such as the radio, the spoken word, circular or newspaper advertising or even advertisements in medical periodicals (under certain definitions), are under the supervision of the Federal Trade Commission.

The Department of Justice, with the Food and Drug Administration, instituted legal proceedings against Samuel Evans Massengill, owner of the Massengill Company. A federal court at Greenville, Tennessee, upheld the contention of the Government that there was adulteration and misbranding. One hundred and sixty-six counts were filed against the concern, fifty-six charging that the drug was adulterated when it was shipped in that its purity fell below the professed standard under which it was sold and fifty-six charging that the drug was misbranded in that the name "Elixir of Sulfanilamide" was false and misleading. The remaining fifty-four counts charged that the drug was misbranded in that the statement "Quality Pharmaceuticals" appearing on the stickers attached to the corks of the bottles was false and misleading. The defendant, by his counsel, filed a demurrer to the charges. Following oral arguments and filing of briefs, the court ruled with the defendant with respect to the fifty-four misbranded counts involving the statement of "Quality Pharmaceuticals," but decided that the 112 counts alleging adulteration and misbranding in connection with the statement "Elixir of Sulfanilamide" did set up violations of the Food and Drug Act. On October 3 the defendant's counsel pleaded guilty to the 112 counts of information and thereupon was sentenced to pay a fine of $150 on each count, making a total of $16,800. In addition there are still pending against Samuel Evans Massengill sixty-two counts to be brought before the district court of Kansas City, covering shipments of Elixir of Sulfanilamide made from the Kansas City plant of the company. Even if it might be assumed that the latter court will impose a similar fine for these counts, the total would be $26,100. The Food and Drug Administration merits commendation for its vigorous pursuit of the Massengill episode.

In the attempt to secure justice for the public in this case, federal officials were miserably handicapped by the weak law in existence at the time of the offense. A similar incident would not be dealt with so lightly under the new laws. Of course if the word "elixir" had not been used, it is unlikely that any member of the medical profession would have prescribed the product, since "elixirs" are widely used and the solvents are not presumed to contain active or poisonous ingredients. Sulfanilamide itself has been recognized as an extremely valuable drug in restricted conditions. Physicians who used the elixir failed to realize that it is far safer to limit prescriptions of nonofficial articles to those brands accepted by the Council on Pharmacy and Chemistry and to use them as described in New and Nonofficial Remedies. It is always hazardous to prescribe unstandardized and uncontrolled remedies, or drugs sold under catchy names. Any pharmaceutic house which desires to market its products honestly and in accordance with the rules of the Council may have its products considered.—*Journal of the American Medical Association,* October 22, 1938.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

CALIFORNIA MEDICAL ASSOCIATION

WILLIAM W. ROBLEE.....President
CHARLES A. DUKES.....President-Elect
LOWELL S. GOIN.....Speaker
KARL L. SCHAUPP.....Council Chairman
GEORGE H. KRESS.....Secretary-Treasurer

OFFICIAL BUSINESS

1. *Council Minutes, Two Hundred and Sixty-Fifth Meeting, May 12, 1938.*
2. *Council Minutes, Two Hundred and Sixty-Sixth Meeting, June 11, 1938.*
3. *Council Meeting, Two Hundred and Sixty-Seventh Meeting, October 1, 1938.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Neon Signs as a Means of Advertising.*
2. *Coöperation Rendered by a County Auxiliary in Work Against "State Humane Pound Act."*

COUNCIL MINUTES*

Minutes of the Two Hundred and Sixty-Fifth Meeting of the Council of the California Medical Association

Held in Room 449 of the Hotel Huntington, Pasadena, California, May 12, 1938, at 9 a. m.

1. **Call to Order.**—The meeting was called to order by Acting Chairman Morton R. Gibbons, with the following members present: Past President Howard Morrow; President William W. Roblee; President-Elect Charles A. Dukes; Speaker Lowell S. Goin; Councilors Calvert L. Emmons, Carl R. Howson, Louis A. Packard, Axcel E. Anderson, Alfred L. Phillips, Oliver D. Hamlin, P. K. Gilman, F. N. Scatena, Henry S. Rogers, Junius B. Harris, C. O. Tanner, William H. Kiger, Harry H. Wilson, Chairman of Public Relations Committee George G. Reinle; Editor George H. Kress, Secretary F. C. Warnshuis; General Counsel Hartley F. Peart and his associate, Mr. Howard Hassard.

Absent: Doctors Kelly and Schaupp.

A quorum present and acting.

2. **Membership of Council.**—Acting Chairman Gibbons announced that George G. Reinle was now a member of the Council by virtue of his election as chairman of the Committee on Public Relations; and P. K. Gilman was the new councilor-at-large from San Francisco.

3. **Election of Chairman of Council.**—On nomination of William Roblee, seconded by Howard Morrow, Karl L. Schaupp was elected chairman of the Council for the ensuing year.

4. **Election of Vice-Chairman.**—On nomination of William Roblee, seconded by Frederick N. Scatena, Junius B. Harris was elected Vice-Chairman of the Council.

Doctor Harris then took the chair.

The Council expressed its appreciation of the services rendered by Doctors Pallette and Gibbons, who then retired.

5. **Executive Session.**—It was moved by Charles Dukes, seconded by Louis Packard, that the Council go into executive session. Carried.

Doctor Warnshuis, Doctor Kress, Mrs. Talbot, Mr. Peart, and Mr. Hassard then left the room.

Dr. Louis Packard was appointed acting secretary.

Announcement was made by Vice-Chairman Harris that the election of a secretary-treasurer and a director of public relations for the ensuing year was the next order of business.

An informal discussion was had of this situation in which all members of the Council (except the newly elected councilors, Doctors Reinle and Gilman) took part. Each member of the Council, with said two exceptions, expressed the opinion that the best interests of the Association would be served and economies effected by the election of a successor to Dr. F. C. Warnshuis, whose term had expired.

Secretary Warnshuis was called in and informed that the Council was of the opinion that a successor to him should be elected and was asked if he desired to make a statement.

The Secretary inquired if there were any charges or specific complaints. None were advanced.

The Secretary then reviewed the circumstances, verbal and written conditions and correspondence, and long distance telephone conversations, under which he was invited to come to California to assume the duties of secretary-treasurer and director of public relations. Citation was made of the understanding agreed upon by the Council at the Council meeting in Yosemite in 1935.

The Secretary then reviewed his activities and directed attention to the approved reports and financial statements that reveal the expanding activity of the Association during his tenure of office and his administrative work . . .

. . . On motion duly made, seconded and unanimously carried by the vote of all the councilors present, excepting the newly elected members, Doctors Reinle and Gilman (who were excused from voting because of their unfamiliarity with the situation), the following resolution was adopted:

WHEREAS, It is to the best interests of this Association and economies can be effected by making a change in the office of Secretary-Treasurer and Director of Public Relations; now, therefore, be it

Resolved, That Dr. Frederick C. Warnshuis be appointed to act temporarily as Secretary-Treasurer and Director of Public Relations, to serve from the date hereof up to July 1, 1938, at his present total salary of $1,000 per month, and that on June 30, 1938, he be paid a bonus of three months' salary, to wit: the sum of $3,000, subject to his acceptance of such temporary arrangement; and be it further

Resolved, That the chairman of the Council be and he is hereby authorized and instructed to appoint a committee of three members of the Council to examine the facts and available documents relating to the original employment of Doctor Warnshuis; to attempt to effect a mutually agreeable settlement of any difference between the Association and Doctor Warnshuis, and report thereon to the Council; and be it further

Resolved, That President W. W. Roblee be and he is hereby appointed, and authorized and directed as a committee of one formally to notify Doctor Warnshuis forthwith of the foregoing action of the Council.

. . . On motion duly made, seconded and unanimously carried (Doctor Gilman not voting), Dr. George H. Kress was elected secretary-treasurer and director of public rela-

* The minutes of the two hundred and sixty-fourth meeting of the Council of the California Medical Association were printed in the July, 1938, issue of CALIFORNIA AND WESTERN MEDICINE, page 84.

tions at a salary of $8,000 a year, to take office on July 1, 1938, for the term commencing July 1, 1938, and ending at the next organization meeting of the Council succeeding the next annual session of the Association.

On motion duly made, seconded and unanimously carried (Doctor Gilman not voting), Dr. George H. Kress was elected editor for the ensuing year at a salary of $4,000 per year.

On motion duly made, seconded and unanimously carried, Hartley F. Peart, Esq., was appointed general counsel for the Association for the ensuing year at his present retainer, to wit, $4,000 per year.

On motion duly made, seconded and unanimously carried, Hubert T. Morrow, Esq., was appointed associate general counsel for the ensuing year, without retainer. . . .

6. **Farm Bureau Conference.**—Doctor Rogers reported on his County Hospital Conference Committee and requested that Doctors Gibbons and Wilson be added to the Committee. Said doctors were added to said committee.

The Secretary was directed to arrange a conference in San Francisco on May 28 between the Council's Special Committee and Farm Bureau representatives. Mr. Peart was recalled and his opinion obtained regarding this conference.

7. **Legal Stenographer.** — It was moved by Charles Dukes, duly seconded and carried, that Mr. Peart be allowed $75 per month for secretarial service.

8. **Council Meeting.** — The Secretary was directed to arrange for a Council meeting in June, time and place to be fixed by the Chairman.

9. **Adjournment.**—The Council adjourned at 1 p. m.

JUNIUS B. HARRIS, *Acting Chairman.*
LOUIS A. PACKARD, *Acting Secretary.*

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Minutes of the Two Hundred and Sixty-Sixth Meeting of the Council of the California Medical Association

A special meeting of the Council of the California Medical Association was held in the offices of the Association, Room 2004, 450 Sutter Street, San Francisco, Saturday, June 11, 1938, at 9:30 a. m.

1. **Roll Call.**—The Secretary called the roll of the Council and the following members answered as being present: William W. Roblee, Lowell S. Goin, Karl L. Schaupp, T. Henshaw Kelly, Calvert L. Emmons, Louis A. Packard, A. E. Anderson, A. L. Phillips, F. N. Scatena, Henry S. Rogers, H. H. Wilson, William H. Kiger, C. O. Tanner, P. K. Gilman, J. B. Harris, George G. Reinle, George H. Kress, F. C. Warnshuis; Mr. Hartley F. Peart, general counsel, and his associate, Mr. Hassard.

Absent: Doctors Dukes, Howson, Morrow, and Hamlin.

2. **Executive Session.**—The chairman, Karl L. Schaupp, announced that at the request of William W. Roblee, the Council would go into executive session. Doctors George H. Kress and Frederick C. Warnshuis and Mr. Peart and Mr. Hassard then left the room.

3. **Call to Order.**—Karl L. Schaupp, Chairman of the Council, acted as chairman of the meeting, and Mrs. Armida Talbot, assistant to the secretary, acted as secretary thereof.

4. **Office of Secretary-Treasurer and Director of Public Relations Department.**—Chairman Schaupp stated that as Doctor Warnshuis left the room he had handed him, as presiding officer, the opinion of Roy A. Bronson, Esq., of the law offices of Bronson, Bronson & McKinnon, on the failure to reëlect Doctor Warnshuis as secretary-treasurer and director of public relations.

Doctor Schaupp then read the opinion of Messrs. Bronson, Bronson & McKinnon, which was then ordered placed on file. . . .

Doctor Roblee presented the report of the Committee appointed to confer with Doctor Warnshuis. At the conclusion of the presentation of the report, Doctor Roblee and Doctor Schaupp submitted to the Council various county society resolutions and letters together with communications from individuals and groups, all expressing opinions on the Council's action in regard to the offices of the secretary-treasurer and director of public relations. Said resolutions and communications were ordered filed.

Upon motion duly made, seconded and carried, the report of the Special Committee was accepted.

Consideration and discussion was then had concerning the resolution and communications previously submitted and filed. (Said resolution and communications consisted of protests and approvals of the Council's action.)

5. **Noon Recess.**—At this point the Council recessed for luncheon.

6. **Reconvening of the Council.**—The Council reconvened after luncheon, with all members present who had attended the morning session. The Chairman announced that the Council would immediately go into executive session.

7. **Minutes of Meeting of May 12, 1938.**—A draft of the minutes of the organization meeting of the Council held at Pasadena, May 12, 1938, was read. Several corrections were ordered in said draft.

8. **Secretary-Treasurer and Director of Public Relations.**—Discussion was resumed on the matter of possible reconsideration of the previous action of the Council and, after full consideration of all circumstances, it was moved and seconded that the Council reaffirm its decision at its annual organization meeting with respect to the employment of a secretary-treasurer and director of public relations. After further discussion the motion was carried (Doctor Kelly voting in the negative).

The committeemen then left the room to confer with Doctor Warnshuis.

9. **Minutes of Meetings of May 12, 1938, and May 8, 9, 10, and 11, 1938.**—The minutes of the annual organization meeting of the Council held at Pasadena, May 12, 1938, as corrected were read to the Council.

Upon motion duly made, seconded and unanimously carried, the minutes as corrected were approved.

The minutes of the meetings of the Council held on May 8, 9, 10, and 11, 1938, were presented and approved.

10. **Notification of Appointment as Secretary-Treasurer and Director of Public Relations.**—Upon motion duly made, seconded and carried, Doctor Warnshuis was directed to notify Doctor Kress of his appointment as Secretary-Treasurer and Director of Public Relations forthwith.

11. **Changes in Personnel.**—On motion duly made, seconded and carried, it was

Resolved, That the Executive Committee or the Chairman of the Council be and they are hereby authorized in the name and on behalf of this Association, California Medical Association, to do such acts and things as shall be necessary in the opinion of either thereof, to effect the changes in personnel of this Association made at the annual organization meeting of the Council held at Pasadena, California, May 12, 1938, and to do such acts and things and take such proceedings as shall be necessary by reason of said changes in personnel.

A vote was taken and said motion carried unanimously.

It was duly moved, seconded and carried, that the Council rise from executive session. Carried.

12. **Date of Next Annual Session.**—Chairman Schaupp presented a letter from Hotel Del Monte outlining desirable dates for the 1939 annual session.

On motion duly made, seconded and carried, May 1, 2, 3 and 4, 1939, was fixed as the date of the next annual session.

13. **Disciplinary Procedures.**—The Chairman announced that he had appointed Anthony Diepenbrock of San Francisco to act as referee in the hearing before the San Mateo

County Medical Society governing disciplinary proceedings against a member of that society. The appointment of the chairman was approved by the Council.

14. **Advisory Committee to Nursing Bureau.**—The Chairman of the Council was instructed to name the three appointees requested by the Department of Public Health to act as an Advisory Committee to the Chief of the Bureau of Nursing Registration.

15. **Woman's Auxiliary.**—A resolution from the Woman's Auxiliary, expressing appreciation of the assistance rendered by the Association during the annual session at Pasadena, was presented for the information of the Council.

16. **Committee on Mental Hygiene.**—A letter regarding the proposed Committee on Mental Hygiene was referred to the Executive Committee for action.

17. **Retired Membership.**—Membership data and the request of the Orange County Medical Society for granting of retired membership to Roland J. Harvey of Anaheim was presented.

On motion of Louis Packard, seconded by Junius B. Harris, the request of the Orange County Medical Society was approved and Dr. Roland J. Harvey was granted retired membership in the California Medical Association.

18. **Medical Care.**—The following resolution was presented to the Council for consideration at the request of Lyell C. Kinney of San Diego.

WHEREAS, The American Medical Association has attempted for many years to appraise and meet the changing problems in the provision and distribution of medical care; and

WHEREAS, The American Medical Association has constantly endeavored to raise the standards of medical practice, and has maintained a fixed policy that any necessary changes in medical practice must improve, and not sacrifice the quality of medical care; and

WHEREAS, It is the policy of the American Medical Association to endeavor to provide adequate medical care to all the people in this country; and to that end the American Medical Association has offered its facilities and its coöperation to any authorized representative of the Government to promote orderly progress and greater efficiency in the provision of medical care; and

WHEREAS, There is a constant and determined attack upon the American Medical Association in lay magazines, in an effort to discredit the policies of the American Medical Association with the public and the Government, and to misrepresent the work and ideals of the Association, and to mold public opinion against the Association; therefore, be it

Resolved, That the House of Delegates of the American Medical Association direct the Board of Trustees to develop an aggressive and forceful program of Public Relations in the Bureau of Health Instruction to inform the public and governmental agencies concerning the policy of the American Medical Association in regard to changes in medical practice, and the reasons therefor; and be it further

Resolved, That it is the judgment and the request of the House of Delegates that the Bureau of Health Instruction employ outstanding professional Public Relations Counsel to direct a sustained program for the purpose of presenting to the public the true facts concerning the need for medical care, and the position of the medical profession concerning the problems involved.

It was moved, seconded and carried, that the Council endorse the resolution as presented and authorize Doctor Kinney, as delegate, to present it on behalf of the California delegation.

19. **Legal Department Stenographic Service.**—The Auditing Committee approved the expenditure of $75 per month for stenographic service for the legal department, commencing June 1, 1938, as authorized by the Council at Pasadena.

20. **American Medical Association Survey of Medical Care.**—It was moved by Junius B. Harris, seconded by Alfred Phillips, that the Chairman of the Council contact Doctors West, Bauer, or Leland and ascertain what action is desired in relation to the American Medical Association Survey on Medical Care, and report to the Executive Committee. Carried.

21. **Farm Bureau.**—Dr. Henry Rogers reported on the conference with the Farm Bureau representatives and suggested that another conference with the Council be called. The report of the Committee and related correspondence was read by Doctor Rogers. No action.

22. **Executive Session.** . . .

. . . At the suggestion of Doctor Kelly, the Conciliation Committee was continued to confer further with Doctor Warnshuis and in the event that a reasonable settlement was offered that it be sent out to the Council for approval by mail vote.

23. **Adjournment.**—There being no further business the meeting adjourned.

KARL L. SCHAUPP, *Chairman.*
LOUIS A. PACKARD, *Acting Secretary.*

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Minutes of the Two Hundred and Sixty-Seventh Meeting of the Council of the California Medical Association

The Council convened at 9 a. m., Saturday, October 1, 1938, in the office of the Association, Room 2004, 450 Sutter Building, San Francisco.

1. **Roll Call.**—The meeting was called to order by Chairman Schaupp. Following councilors were present: Doctors Schaupp, Anderson, Roblee, Phillips, Scatena, Kiger, Reinle, Gilman, Wilson, Rogers, Emmons, Dukes, Goin, Morrow, Hamlin, Packard, Kress; Mr. Peart and Mr. Hassard.

T. Henshaw Kelly arrived after the noon recess.

Absent: Doctors Harris, Howson and Tanner.

After informal reports by Doctors Henry S. Rogers of Petaluma and Louis A. Packard of Bakersfield, on behalf of the special committees of which they were chairmen, an exchange of opinion was had on the nature of topics which might come up for discussion in the conference with the Farm Bureau representatives, which was to follow.

At 10 a. m. the Council recessed, the members going to the Sir Francis Drake Hotel, which had been designated as the meeting place for the conference with representatives of the California Farm Bureau.

2. **Farm Bureau Conference.**—The conference was held in Room 302 in the Sir Francis Drake Hotel. A previous conference with a special committee of the California Medical Association had been held on Saturday, May 28, 1938, the present conference being called to bring about a clearer understanding on problems of mutual interest concerned with public health, medical service, hospital needs and allied matters.

The conference was called to order by Council Chairman Schaupp, who in turn introduced Dr. W. W. Roblee of Riverside, President of the California Medical Association, who acted as chairman of the conference.

The conference continued until 12:30 noon, at which time luncheon was served. After luncheon, the conference again convened. All representatives of the Farm Bureau spoke and gave information of real importance on the medical service and other needs of the farmer population in California. Their own well-planned organization was explained and some of their objectives indicated. After a free expression of opinion by the Farm Bureau and other representatives, President Roblee requested Councilor Louis A. Packard, who had completed an extensive trip throughout the state, to give to those present some of his observations A general discussion followed, and it was agreed that it was desirable that the progress which had been made should be followed up through the appointment of a special committee to represent the California Medical Association to meet with and confer further on next steps in procedure, as regards prospective legislation and other matters having as their object the attainment of ends on which mutual agreement had been made.

It was moved by Charles Dukes, seconded by Howard Morrow, that a committee, consisting of Doctors Rogers, Packard, and Reinle, be appointed to confer with the Farm Bureau, hospital and dental representatives, in line with the opinions agreed upon in the conference. Carried.

At 4 p. m. the conference came to an end, President Roblee expressing to the Farm Bureau representatives the appreciation of the Council of the California Medical Association for their attendance and coöperation.

Council Chairman Schaupp then resumed the chair.

3. **Minutes of the Council.**—(a) *Organization Meeting.* The minutes of the organization meeting (two hundred and sixty-fifth meeting) of the Council, held on Thursday, May 12, 1938, were presented, these having been approved at the special meeting of June 11, 1938.*

J. B. Harris, who acted as chairman *pro tem* of the meeting, was instructed to edit the minutes for publication and resubmit them to the Council at the meeting to be held tomorrow (Sunday, October 2, 1938).

(b) *Special Meeting.*—The minutes of the special meeting (two hundred and sixty-sixth meeting) of the Council (an executive session) held in San Francisco on June 11, 1938, were presented.

It was moved by Lowell S. Goin, seconded by T. Henshaw Kelly, that a committee† of two members of the Council be appointed to edit the minutes before submission for approval or publication. Carried.

4. **Minutes of the Executive Committee.**—The minutes of the one hundred and fifty-ninth meeting of the Executive Committee were presented.

It was moved by Charles A. Dukes, seconded by Howard Morrow, that the digest of the minutes of the one hundred and fifty-ninth meeting of the Executive Committee, as published in the September JOURNAL, be approved. Carried.

It was moved by Harry H. Wilson, seconded by Charles A. Dukes, that a committee, consisting of the Chairman of the Executive Committee, review the minutes of the one hundred and fifty-ninth meeting the the Executive Committee and that revised copies of the complete minutes be sent to all members of the Council. Carried.

5. **Financial Statements.** — Financial statement for the month of August was presented and, there being no objection, was approved.

The Secretary was authorized to clarify the monthly financial statements by the addition of columnar totals and was instructed to include a record of membership in each monthly statement.

6. **Indemnity Defense Fund.**—A bill from Ernst & Ernst, certified public accountants, for auditing the accounts of the Indemnity Defense Fund as of June 30, 1938, in the sum of $75 was presented.

It was moved by T. Henshaw Kelly, seconded by Charles A. Dukes, that the bill of Ernst & Ernst for $75 be paid by the California Medical Association. Carried.

7. **Annuity Insurance Premiums.**—It was the sense of the Council that the section of the report of the Special Committee on Expenditures of the Association relating to annuity insurance for clerical employees be complied with and that the premium covering the policy of Miss Smith be paid by her.

8. **Office Assistants.**—The Secretary stated that extra Association activities that were in contemplation and additional work of the Committees on Postgraduate Activities and Pneumonia Control would require the service of an expert stenographer.

It was moved by Howard Morrow, seconded by William H. Kiger, that the matter of change in office assistants be left in the hands of the Secretary and he be authorized to secure a stenographer at $125 to $150 per month. Carried.

9. **Committee on Hospitals, Dispensaries, and Clinics.** It was moved by Charles A. Dukes, seconded by George G. Reinle, that the resignation of Daniel Crosby as chairman of the Committee on Hospitals, Dispensaries, and Clinics, be accepted with regret. Carried.

It was moved by Charles A. Dukes, seconded by George G. Reinle, that the mail vote of the Council on the election of W. E. Mitchell as chairman of the Committee on Hospitals, Dispensaries, and Clinics be confirmed and approved. Carried.

10. **Committee on Pneumonia Control.**—For the information of the Council, the Secretary stated that the Committee on Pneumonia Control had outlined a plan of procedure which might entail clerical work and coöperation in the Central Office of the Association.

11. **Golden Gate Exposition.** — T. Henshaw Kelly, Chairman of the Committee on Exhibits at the Golden Gate Exposition, stated that he had contacted Mr. Silverman, Director of Exhibits in the Health and Science Building, and that he was at present negotiating for floor space. For the information of the Council, Doctor Kelly outlined a plan for a booth on cancer, which could be erected and maintained during the Exposition at a cost not to exceed $5,000.

The Secretary stated that at present there was available in the Herzstein Bequest for use in the preparation of such exhibit, $2,687.23.

It was moved by Charles A. Dukes, seconded by George G. Reinle, that the California Medical Association advance $3,000 for use in the preparation of an exhibit at the Golden Gate Exposition that would promote the objectives outlined in the bequest of the late Dr. Morris Herzstein, and that the moneys be refunded from the Herzstein Bequest income, as received; and that the booth be under the charge of the Special Committee for the Golden Gate International Exposition, of which T. Henshaw Kelly is chairman.

12. **Committee on Hard of Hearing.**—The Secretary presented a folder distributed by the Section on Ophthalmology and Otolaryngology's Committee on the Hard of Hearing and called the attention to the unauthorized use of the name "California Medical Association" in the title thereof. Doctor Kress stated that the pamphlet had been excellently prepared and for a much-needed purpose, but the use of the name of the California Medical Association was not in accord with the by-laws or rules laid down by the Council.

It was moved by Charles A. Dukes, seconded by A. E. Anderson, that the attention of the Chairman of the Section on Ophthalmology and Otolaryngology and of the Section's subcommittee be called to the Council ruling on the use of the name of the Association, and that the Section be asked to first secure such approval before sending out any additional literature. Carried.

13. **Department of Public Relations Bulletin.**—George G. Reinle, Chairman of the Committee on Public Relations, advised that the Committee had discussed the desirability of publishing a bulletin for the department as material accumulated and needs arose for such a pamphlet.

It was moved by Calvert Emmons, seconded by George G. Reinle, that publication of a "bulletin" for the Department of Public Relations, when the dissemination of valuable information was desired, be authorized and that the expense thereof be charged against the budget of the Department of Public Relations. Carried.

14. **Recess of Council.**—At this point, on motion of Charles A. Dukes, seconded by George G. Reinle, the Council recessed until 9 a. m., Sunday, October 2, 1938.

15. **Reconvening of Council.**—The Council reconvened at 9 a. m. in Room 302, Sir Francis Drake Hotel, on Sunday, October 2, 1938, with the following members present: Doctors Schaupp, Anderson, Roblee, Phillips, Scatena, Kiger, Packard, Reinle, Harris, Gilman, Wilson, Rogers, Emmons, Dukes, Goin, Kelly, Hamlin, Morrow, Howson, Kress; Mr. Peart and Mr. Hassard.

Absent: Doctor Tanner.

16. **California and Western Medicine.**—The Council gave its approval to the recommendation of the Executive Committee that the members of the Nevada State Medical Association be again granted affiliation with CALIFORNIA AND WESTERN MEDICINE on the same basis for acceptance

* Item 9 of Minutes of that meeting.

† Committee appointed: President W. W. Roblee and Council Vice-Chairman Junius B. Harris.

of articles and news as apply to California members, provided that the Nevada State Medical Association agreed to cover approximate costs of California and Western Medicine through the payment by its treasurer of $3 each for the entire membership of the Nevada State Medical Association.

17. **Medical Libraries.**—It was moved by Charles A. Dukes, seconded by A. E. Anderson, that medical libraries be allowed a 25 per cent discount from the regular subscription price. Carried.

18. **Agencies.**—It was moved by A. E. Anderson, seconded by George G. Reinle, that subscription agencies be allowed a discount of 20 per cent from the regular subscription price of the Journal. Carried.

19. **Editorial and Secretarial Position.** — After discussion of a letter received from a member of the Association requesting consideration of his application for a position as assistant secretary and assistant editor, it was moved by Charles A. Dukes, seconded by A. E. Anderson, that such office be not created at this time; and the Chairman of the Council be instructed to write to the inquiring member and advise him of the Council's action. Carried.

20. **Humane Pound Initiative.**—The action of the Executive Committee in recommending that the Council appropriate not to exceed $10,000 for educational purposes in connection with the importance of animal experimentation in medical research and the proposed State Humane Pound Act (Initiative No. 2 on the November 8, 1938, State election ballot), was discussed.

P. K. Gilman, campaign manager of the California Society for the Promotion of Medical Research, then outlined the activities and plans of that organization. Doctor Gilman stressed the need of financial support for the carrying on of educational work over the radio, through the press and in public meetings, stating that the present plans of the California Society for the Promotion of Medical Research would require $6,000, to be used for radio, printing, and newspaper publicity. Doctor Reinle stated that $2,500 had been appropriated by the Alameda County Medical Association at its meeting a week ago, to aid in protecting medical research, the Alameda County Association contributing to the cause the sum of $5 for each of its members.

It was moved by William W. Roblee, seconded by Charles A. Dukes, that $3,000 of the $10,000 suggested by the Executive Committee to be allocated by the Association be placed at the disposal of the California Society for the Promotion of Medical Research, with the provision that none of such sum shall be used for salaries. Carried.

The members of the Council felt that a plan should be developed to secure aid from county medical societies, and that county auxiliaries should also be contacted to aid in carrying out the plan of distribution of educational literature through physicians to their patients.

It was moved by T. Henshaw Kelly, seconded by W. W. Roblee. that the Council authorize the necessary expenditure, not to exceed $7,000, and that the Association Secretary be instructed to begin the development of a plan which will place in the hands of members' patients a letter not less than forty-eight hours prior to the November 8 election requesting the patient, as the physician's friend, to vote against the bill, and thereafter the Central Office of the California Medical Association is to be the coördinating agency in the development of the machinery to carry out this plan; and that the responsibility of supervising the carrying out of the plan be through a committee composed of P. K. Gilman, T. Henshaw Kelly, and George H. Kress. Carried.

Upon the suggestion of Dr. Goin, Dr. J. W. Crossan of Los Angeles was added to the committee.

21. **Nursing Practice Act.** — The proposed Nursing Practice Act as submitted by the California Nurses' Association was presented, and on motion of Charles A. Dukes, seconded by Alfred Phillips, the same was referred to the Committee on Public Policy and Legislation for study and report. Carried.

22. **Medical Practice Act.**—T. Henshaw Kelly, Committee of One, appointed by the Executive Committee, reported on proposed amendments to the Medical Practice Act relating to interns as outlined in a recent ruling of the Attorney-General, whereby interns in California hospitals who had been graduated in other states and who had an M. D. degree, but who were not yet licensed in California, violated the Medical Practice Act, subjecting themselves, the hospitals, and the physicians under whom they worked, to legal prosecution. Doctor Kelly then presented a tentative draft of a proposed amendment and stated he had discussed this amendment with Doctor Harris and that it was planned to secure the views of the Board of Medical Examiners thereon at its meeting on October 15.

It was moved by William H. Kiger, seconded by Charles A. Dukes, that the Council approve the recommendations of the Committee.

A vote was taken on the motion; motion carried, Doctors Rogers and Packard voting in the negative.

23. **Institutions Commission.**—Doctor Kress made a progress report concerning a proposed Los Angeles County Institutions Commission and stated the Los Angeles County Grand Jury had brought in a report to the Los Angeles County Board of Supervisors, recommending the establishment of such a commission to supervise the administration of the Los Angeles County Hospital, Olive View Sanatorium, and Rancho Los Amigos (County Farm).

24. **San Mateo Hearing.**—It was moved by Charles A. Dukes, seconded by Junius B. Harris, that on behalf of the Council a letter of appreciation be sent Dr. Anthony Diepenbrock for his services in acting as referee in the San Mateo hearing. Carried.

25. **San Francisco Hearing.**—A letter was presented from the secretary of the San Francisco County Medical Society stating that the date of hearing of the charges in the case of *A. S. Green* and *Martin I. Green* vs. *Dohrmann Pischel*, had been fixed as October 24, 1938.

26. **San Diego Hearing.**—The Secretary reported that, in accordance with a request received from Dr. Roy Stevenson, he would forward a copy of the transcript of the minutes of the hearing as conducted at the Pasadena session, upon receipt of the check to cover cost of stenographic services.

27. **Membership.**—The Los Angeles County Medical Association having recommended for retired membership Dr. William H. Gilbert of Laguna Beach, who had permanently retired from practice, on motion of T. Henshaw Kelly, seconded by P. K. Gilman, William H. Gilbert of Laguna Beach was granted retired membership in the California Medical Association.

28. **Prospective Membership.**—It was the sense of the Council that the regular procedure in regard to checking membership applications with the Board of Medical Examiners and the American Medical Association be continued and that Section 8 (b) of Chapter II of the by-laws of the Association on "residence requirement," which stipulates at least six months' prior residence, must be had before election to membership, be observed in all cases.

29. **Association Membership.**—It was moved by William Roblee, seconded by A. E. Anderson, that the former member of the Alameda County Medical Association who desired to remit dues without entailing membership in the County or State Associations and without rsponsibility for the transactions of the Association, be informed that it will be impossible to receive dues under these provisions. Carried.

30. **County Society Members on Leaves of Absence.** It was the sense of the Council that there was no provision whereby membership could be retained in the State Association by members who had been granted leaves of absence from county societies except by regular payment of the State dues, which, if paid, would also entitle the member to automatic membership in the American Medical Association. Fellowship in the American Medical Association would then also be possible, provided the American Medical

Association member made application therefor, enclosing subscription to the *Journal of the American Medical Association* ($7).

31. **Special Meeting of American Medical Association.** President William W. Roblee read a report on the special meeting of the American Medical Association held in Chicago, September 16 and 17, 1938. The report to be printed in the October, 1938, issue of California and Western Medicine.

32. **Medical and Hospital Indemnity Policies.**—General Counsel Peart read a letter prepared in accordance with instructions from the Executive Committee for transmission to all county societies, regarding medical and hospital indemnity policies.

A discussion was had as to the scope and interpretation of policies of "for-profit organizations" and their effect on "nonprofit organizations"; the dangers involved when such "for-profit policies" were approved being outlined. It was pointed out that the policies constituted a contract between the insurance company and the patient and not between the insurance company and the physician.

A letter submitted by Mr. Peart, and to be sent to the secretaries of the several component county societies advised as to the course to be followed with reference to solicitation for endorsement of such policies either by the insurance company or by the insured.

Dr. Charles A. Dukes suggested that the letter be amended by a clause calling attention to the fact that the Association had approved three nonprofit associations and corporations furnishing hospital insurance.

It was moved by Charles A. Dukes, seconded by Alfred L. Phillips, that the letter, with suggested amendments, be approved. Carried.

33. **Palo Alto Hospitalization Group.**—The Secretary read a letter written to Russell V. Lee, regarding the Palo Alto Hospitalization Group.

The Council restated its former action and rule that all plans for hospital or medical service submitted for the approval of the State Association must be submitted through the respective county society to the California Medical Association's Committee on Public Relations for report and recommendation to the Council.

A letter on these matters from the Santa Clara County Medical Society was read and the Secretary was instructed to call attention to the procedure to be followed before endorsement could be given by the county society.

34. **Diagnostic Medical Service.**—The Secretary read a letter from Dr. L. H. Garland, addressed to Council Chairman Karl Schaupp, dated September 1, 1938, requesting that diagnostic medical service through indemnification be eliminated from the policies of the Insurance Association of Approved Hospitals. Full discussion was had.

It was moved by Charles A. Dukes, seconded by George G. Reinle, that the Council Chairman appoint a Committee of Three to confer with representatives of the Pacific Roentgen Society and with the Insurance Association of Approved Hospitals. Carried.*

It was moved by Charles A. Dukes, seconded by George G. Reinle, that a Committee of Three be appointed for the purpose of studying medical service on an indemnification basis on a periodic payment plan and to bring in a report thereon to the Council. Carried.†

35. **Woodland Clinic.**—The Secretary read a letter from Dr. John Homer Woolsey, regarding a proposed survey of the Clinic. The Council concurred in the sentiments expressed by Doctor Woolsey regarding such survey.

36. **Mono-Inyo County Society.** — The Secretary reported that plans were under way for the formation of a medical society that would make application for a charter as a county medical society for Mono and Inyo counties.

37. **Exhibits at Annual Session.**—The Secretary reported on plans for exhibit space at the Del Monte session, and on motion of Louis A. Packard, seconded by A. E. Anderson, the plan as outlined was approved and the Secretary was authorized to proceed and to make all necessary arrangements.

38. **Committee on Arrangements.**—In accordance with Section 6 of Chapter IV of the by-laws, the Chairman, with the approval of the Council, named as the local Committee on Arrangements for the Del Monte annual session, May 1 to 4, 1939, the following: Doctors Mast Wolfsohn, Monterey (Chairman); Alfred L. Phillips, Santa Cruz; W. M. Gratiot, Monterey; Curtis B. Gorham, Monterey; and H. R. Lusignan, Monterey, with the Association Secretary, ex-officio member, as per the by-laws.

39. **State Dental Association.**—It was the sense of the Council that the California State Dental Association be invited to exhibit at our annual session if space is available.

40. **Western Urological Association.**—It was the sense of the Council that the Western Urological Association be invited to let the exhibits they are to have at the Del Monte Hotel just prior to our meeting remain in place during our session, provided space in the Section for Scientific Exhibits be available.

41. **California Medical Association Forestry Service.** After discussion the Council ordered that the activities in regard to the Forestry Reserve be carried on through the Central Office of the Association.

It was moved by Howard Morrow, seconded by George Reinle, that the Secretary of the Association act as chief medical officer of the California Medical Association Forestry Service. Carried.

42. **Amendment to Employees' Compensation Act.**—The Secretary reported that the United States Employees' Compensation Act, Section 40, had been amended to include in the term "physician" in services rendered to federal employees, osteopathic practitioners within the scope of their practice as defined by State law.

Doctor Schaupp reported that the Agricultural Workers' Health and Medical Association limited itself to physicians and surgeons who were eligible to membership in their county medical societies.

43. **X-Ray Service.**—It was reported that the United States Public Health Service had contemplated an x-ray service at the Golden Gate Exposition, but after further consideration the matter had been dropped. Doctor Morrow reported that the California State Board of Public Health had discouraged the plan.

44. **Balopticon Lanterns.**—The Secretary reported on the lanterns for use at the annual session, stating that all were in order. One was especially designed for use for long-range lantern-slide display and one for opaque display, and that the other six were for use in the ordinary size section room.

45. **Councilor Expense.**—After discussion, it was moved by William H. Kiger, seconded by Charles A. Dukes, that councilors and officers of the Association be allowed $5 per day, plus round-trip fare and lower berth, for authorized meetings or conferences on Association business held at places other than their immediate home communities. Carried.

46. **Reprint Costs.**—A letter from a member of the Association asking for a reduction in the price of reprints for quantity order was presented.

It was moved by Charles A. Dukes, seconded by Lowell A. Goin, that the matter of price of reprints in quantity lots be left to the judgment of the Secretary. Carried.

47. **Council Meeting.**—It was moved by Charles A. Dukes, seconded by Alfred L. Phillips, that the next meeting of the Council be held in Los Angeles in January, the exact time to be set by the Chairman of the Council. Carried.

It was stated that the date and place of the conference of county society secretaries with councilors and members

* The Committee appointed consists of Doctors George G. Reinle, Chairman, Oakland; T. Henshaw Kelly, San Francisco; and Robert S. Stone, San Francisco.

† The Committee agreed upon consists of Charles A. Dukes, Oakland, Chairman; T. Henshaw Kelly, San Francisco; Lowell S. Goin, Los Angeles.

of standing committees would be decided later, possibly in late January or early February, Doctor Harris, Chairman of the Committee on Public Policy and Legislation, to be consulted in regard to the best time for holding the meeting.

48. **Medical Economic Survey.** — It was moved by Charles Dukes, duly seconded, that a copy of the California Medical Economic Survey be sent to each state medical society and each State Board of Health. Carried.

49. **California Medical Economic Survey.** — A letter from a member was read in which request was made that the full report as submitted by the Survey Director, be sent to him for perusal.

It was the sense of the Council that any member who desired to see the voluminous original report of the Director of the California Medical-Economic Survey be informed that it was open for inspection in the Association office in the city of San Francisco.

50. **Registration of Physicians' Licenses.**—The matter of legal right of a physician to practice and collect fees from patients residing in an adjoining county, wherein his certificate had not been registered was discussed (in relation to a letter received from a member who suggested a legislative amendment to make such registration unnecessary).

It was moved by William Roblee, seconded by Henry Rogers, that physicians be advised to register their licenses according to the requirements of the existing law. Carried.

51. **"Thirty-Dollar Thursday Plan."** — The proposed pension, known as "Thirty-Dollar Thursday," was presented for informative purposes. No action was taken.

52. **Retired Membership Forms.**—The Secretary was authorized to revise the present retired membership blanks to include therein the stipulations concerning "retired members," as contained in Article IV, Section 1 (c) of the Constitution of the California Medical Association.

53. **Herzstein Bequest.**—The Secretary reported that a full report on the income from the Herzstein Bequest had been filed with the Association by the Wells Fargo Bank and Union Trust Company and was open for inspection at the Association offices.

54. **Editorial Policy.**—It was the sense of the Council that the Editor was authorized to edit copy received for publication in the JOURNAL as provided in Item 13 of the Council's pamphlet, "Suggestions to Authors," and the action taken in not printing certain resolutions in recent numbers because of Association policy and interests, as recommended by the Executive Committee, be approved.

55. **Four Fifty Sutter Building.**—The Secretary stated that he had made request of the Four Fifty Sutter Building for additional storage space, and that the corporation had generously allocated one-half of what was formerly the office of the Cancer Commission, without increase in present rent.

It was moved by T. Henshaw Kelly, seconded by P. K. Gilman, that a letter of appreciation be sent to the Four Fifty Sutter Corporation. Carried.

56. **Recess.** — At this point a recess was taken for luncheon.

57. **Call to Order.**—After the noon recess the Council was called to order by Chairman Schaupp.

58. **Policies of Association.**—It was moved by William H. Kiger, seconded by T. Henshaw Kelly, that the "Report of Special Committee Concerning Policies of the Association" be considered. Carried.

It was moved by Carl Howson, seconded by T. Henshaw Kelly, that the name of the "Committee Concerning Policies of the Association" be changed to read: "Special Committee Concerning Statement of Policies of the Association"; and secondly, that the Secretary be empowered to receive the report of the Committee and carry out its instructions. Carried.

The Committee named includes: George G. Reinle of Oakland, Chairman; W. W. Roblee, Riverside; Lowell S. Goin, Los Angeles; C. A. Dukes, Oakland; and J. B. Harris, Sacramento.

It was moved by Carl R. Howson, seconded by A. E. Anderson, that the Committee meet and announce the policies and that each member of the Council receive a copy of such announcements for consideration and suggestions prior to formal printing and distribution. Carried.

59. **Office Assistants.**—It was moved by William W. Roblee, seconded by Charles A. Dukes, that the question of office assistants be reconsidered. Carried.

After discussion of the additional clerical work in the Association offices in connection with postgraduate activities, legislation and various committees, it was moved by William W. Roblee, seconded by Charles A. Dukes, that the former action of the Council, on October 1, be rescinded. Carried.

It was moved by William Roblee, seconded by T. Henshaw Kelly, that the Secretary at his discretion employ an additional stenographer at a starting salary of not to exceed $125 per month. Carried.

60. **American Medical Association Annual Meeting.** The Secretary stated that Dr. Alanson Weeks, Treasurer of the Local Committee on Arrangements for the 1938 annual meeting of the American Medical Association, had sent a refunder check for one thousand dollars ($1,000) which had been donated by the California Medical Association for entertainment of the national organization during its meeting in San Francisco.

It was moved by T. Henshaw Kelly, seconded by P. K. Gilman, that a letter of appreciation, in the name of the Council, be sent the Local Committee. Carried.

61. **Minutes of Council.**—The minutes of the annual organization meeting of the Council held on May 12, 1938, previously approved by the Council, were presented as edited for publication by the vice-chairman and the president, and, there being no objection, said minutes as edited were approved for publication.

The minutes of the special meeting of the Council held on June 11, 1938, were thereupon presented by the Committee of Two, previously appointed, for approval and, there being no objection, were approved. Said minutes of the special meeting held on June 11, 1938, as edited for publication by the Committee, were thereupon presented and, there being no objection, said minutes as edited were approved for publication.

62. **Minutes of the Executive Committee.**—It was moved by T. Henshaw Kelly, seconded by Charles A. Dukes, that the minutes of the one hundred and sixty-fifth meeting of the Executive Committee on August 13, 1938, be approved as read by the Chairman.

63. **Report on Transfer of Association Records and Change in Administrative Offices.**—The Chairman then requested General Counsel Peart to present the report of the Council Chairman in the matter of change in the position of Secretary-Treasurer, who then read to the Council the report of Dr. Karl L. Schaupp, Chairman of the Council, dated June 6, 1938, and in connection therewith Mr. Peart presented to the Council the several documents attached thereto as follows:

(*a*) Written direction of the Council to effect settlement with Dr. F. C. Warnshuis.

(*b*) Audits of the books and records of the California Medical Association and Trustees Of The California Medical Association as of June 30, 1938, prepared by the Association's accountants, Messrs. Ernst & Ernst.

(*c*) Release dated June 30, 1938, F. C. Warnshuis to California Medical Association et al.

(*d*) Resignation dated June 30, 1938, of Dr. F. C. Warnshuis as a member, director, and secretary of Trustees Of The California Medical Association.

(*e*) Copy of receipt dated June 30, 1938, from Dr. Karl L. Schaupp, as chairman of the Council, to Dr. F. C. Warnshuis for the property, books and records of the Association.

(*f*) Copy of receipt dated June 30, 1938, from Dr. Karl L. Schaupp, as treasurer of Trustees Of The California Medical Association, to Dr. F. C. Warnshuis for the property, books and records of Trustees Of The California Medical Association.

On motion duly made, seconded and unanimously carried, the following resolutions were adopted:

Resolved, That the action taken by individual members of the Council comprising all but three members thereof, in authorizing the settlement made with Dr. F. C. Warnshuis as set forth in the report of the chairman of the Council, dated July 6, 1938, be and the same is hereby ratified, approved and confirmed; and be it further

Resolved, That the acts and proceedings of Dr. Karl L. Schaupp, as chairman of the Council, in effecting said settlement as set forth in said authorization and in his said report and each thereof be and the same are hereby ratified, approved and confirmed.

64. **Letter from Former Association Secretary.**—1. A letter dated June 30, 1938, from Secretary F. C. Warnshuis and addressed to the chairman and members of the Council and dealing with California Medical Association activities was presented for consideration.

It was moved by T. Henshaw Kelly, seconded by J. B. Harris, that the letter from F. C. Warnshuis on Association activities be ordered filed. Carried.

2. A second letter, dated June 22, 1938, from Secretary F. C. Warnshuis and addressed to county presidents and secretaries and dealing with California Medical Association activities, was also presented.

Legal Counsel Peart requested permission to file a report in answer to the statements made in the letters.

Editor Kress also requested permission to file a report covering statements made in regard to California and Western Medicine.

It was moved by T. Henshaw Kelly, seconded by J. B. Harris, that the replies of the General Counsel and the Editor to statements made in regard to the legal department in the letter of Doctor Warnshuis on Association activities be mailed to each member of the Council. Carried.

65. **Special Conference Committee.** — Doctors Rogers and Packard inquired as to the scope of activities and the powers of the newly appointed committee to confer with Farm Bureau representatives.

It was moved by J. B. Harris, seconded by Charles A. Dukes, that the oral report of the Committee, as submitted by Doctor Packard, be accepted and the Council express its confidence that this committee will proceed along the lines outlined. Carried.

66. **County Hospital Committee.**—Doctor Packard reported on the work that he had carried on in connection with the County Hospital Committee and his travels throughout the state.

The Secretary was instructed to send to Doctor Packard a copy of the regulation expense blank, which would be filled out by Doctor Packard and submitted to the Auditing Committee for approval.

67. **California Unemployment Reserves Tax, Federal Income Tax, Federal Social Security Tax, Capital Stock Tax.**—Mr. Howard Hassard, assistant to the General Counsel, explained the recent ruling made by the Treasury Department of the United States in granting exemptions to the Association from income tax and capital stock tax, upon the basis that the Association constitutes a "business league"; also advising the Council that this ruling would subject the Association to the Federal Social Security Act and the California Unemployment Reserves Tax Act, but would not subject it to the Federal Capital Stock Tax Act or the Federal Income Tax Act. The General Counsel supplemented this report with a detailed written report, dated September 27, 1938, which was filed with the Association Secretary.

68. **Indemnity Policies of Insurance Companies.**—(*a*) The General Counsel presented a letter addressed to him by Dr. L. H. Garland of San Francisco, dated September 23, 1938, requesting the General Counsel to take up with Pacific Employers' Insurance Company certain amendments to its policies dealing with hospital and medical benefits.

On motion of Charles A. Dukes, seconded by J. B. Harris, Doctor Garland's letter was referred to the General Counsel for further consideration and consultation, and report back to the Council.

69. **Medical and Hospital Indemnity Insurance.**—The General Counsel referred to his report on medical and hospital indemnity insurance and suggested that the report be referred to the Special Conference Committee.

There being no objection it was so ordered.

70. **Pacific Health Corporation.**—The General Counsel reported that the Supreme Court of California, by a four to three decision, had decided the case of *People* vs. *Pacific Health Corporation,* and that the decision of the Court affirmed the previous decision of the trial court, which was to the effect that Pacific Health Corporation had no right or power legally to furnish to its members the services of physicians and surgeons. The General Counsel stated that this decision firmly establishes that capital stock corporations may not designate, appoint or otherwise control the selection of physicians by patients.

71. **Butterworth versus Boyd.**—The General Counsel reported that this case, involving the constitutionality of the San Francisco Charter amendment authorizing the city employees to establish a health service system, had been decided and the constitutionality of the amendment upheld in a six to one decision.

It was moved by T. Henshaw Kelly, seconded by Carl Howson, that the General Counsel be instructed to prepare and present to the Council an opinion analyzing for the information of the Council the San Francisco Charter amendment as affected by the decision in *Butterworth* vs. *Boyd,* and Plan No. 1 as now in operation. Carried.

72. **Graun versus Harder.**—The General Counsel stated that at the present time this case was quiescent.

73. **Engleking versus Carlson.**—Mr. Peart stated that this case, involving application of *res ipsa loquitur* doctrine, would come up for hearing next week and he was associated with the attorneys for the insurance company and would personally make the argument.

74. **Legislation.**—The General Counsel requested that he be furnished, at the earliest possible moment, with memoranda concerning any proposed legislation.

It was the sense of the Council that a letter should go out to the county societies advising them that all proposed legislation should be submitted at an early date to the Committee on Public Policy and Legislation.

75. **Osteopathic Physician Cases.**—Mr. Peart outlined the situation in Visalia in regard to the demand of an osteopathic physician to be allowed to practice in the municipal hospital, and referred to a decision rendered by the United States Supreme Court in which that court held that an osteopathic physician in Galveston, Texas, had no constitutional right to practice in the Galveston municipal hospital. Mr. Peart also reported with respect to the status in the case of *Jordt* vs. *State Board of Education,* which is a mandamus proceeding by an osteopathic physician, brought by the osteopathic physician for the purpose of forcing the State Board of Education to grant to him a health and development certificate. Mr. Peart stated that, in his opinion, the United States Supreme Court decision above referred to, and several other decisions in other states, might well be held by the California court to preclude the granting of a writ of mandamus. Mr. Peart pointed out, however, that the case was not as yet decided and hence no formal opinion on its merits was proper at this time.

76. **Uniform Compensation Medical Report Blanks.**—The General Counsel stated that he had taken up with the president of the Casualty Attorneys' Claims Association

the desirability of the adoption of a uniform medical report blank for all compensation insurance carriers.

77. **Kings County Hospital**—It was moved by Lowell S. Goin, seconded by C. A. Dukes, that the bill of Mr. Siemon for services rendered in connection with the county hospital situation, in the amount of $67.50, be paid. Carried.

78. **Fresno City Physician.**—The General Counsel reported that he had rendered an opinion to Doctor Anderson, at his request, on a type of contract practice being carried on in the care of city employees at Fresno.

79. **Malpractice Insurance Policies.**—Mr. Peart stated that his office had furnished the Surplus Line Brokers' Association with comments on their proposed rider which is to be attached to policies issued by underwriters at Lloyd's, in London, regarding "surgery," but that, in the absence of instructions from the Council, no opinion had been rendered with respect to the merits or advisability or the subject matter of the proposed rider.

80. **Adjournment.**—There being no further business, on motion of Lowell S. Goin, seconded by William H. Kiger, the meeting adjourned.

KARL L. SCHAUPP, *Chairman.*
GEORGE H. KRESS, *Secretary.*

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Subject: Concerning Neon Signs as a Means of Advertising—"Principles of Medical Ethics"

(Copy of an opinion given by Legal Counsel Hartley F. Peart)

San Francisco, California,
October 14, 1938.

Arthur E. Varden, M.D., Secretary,
San Bernardino County Medical Society,
San Bernardino, California.

Re: Use of Neon Sign by Physician; Principles of Professional Conduct.

Dear Doctor:

In regard to the above subject, I have now had an opportunity to examine the Constitution and By-Laws of the San Bernardino County Medical Society in order to determine whether or not a physician who erects a neon sign in front of his office may be considered to be infringing any principles of medical ethics applicable to members of the San Bernardino County Medical Society.

For the purpose of this opinion, I am assuming the facts to be as stated in your letter of October 8, viz: that a member of the Society has erected a large neon sign in front of his office which is located on one of the main streets of the town and that he does not live at his office and the sign burns until late at night. You will understand that my opinion necessarily will be predicated upon the foregoing being the actual facts.

Neither the Constitution nor the By-Laws of the San Bernardino County Medical Society contain any specific principles of professional conduct. The only provisions which relate to professional conduct are the following:

Section 4 of Chapter I of the By-Laws, which adopts the *procedure* for disciplining a member set forth in the By-Laws of the California Medical Association. Subdivision (D) of Section 4 of Chapter I of the By-Laws does provide that anyone who violates any of the provisions of the Constitution or By-Laws or Principles of Professional Conduct of the San Bernardino County Medical Society shall be liable to censure, suspension, or expulsion. Thus, principles of professional conduct are referred to as though they were in existence (if so, they do not appear in the By-Laws). Section 4 of Chapter VII of the By-Laws creates a committee on professional conduct, which committee has the duty of investigating and arbitrating, if possible, all disputes relating to professional conduct. This committee also has, under said Section 4, certain duties in regard to malpractice actions. In this section, principles of professional conduct are again mentioned as though they did exist, but are not set forth.

It appearing that the By-Laws of the Society do not contain any detailed principles of professional conduct, it is necessary in order to determine those principles which are to govern the members to turn to the By-Laws of the California Medical Association which govern all component county societies and the members thereof. Chapter II, Section 2, Subdivision (D), of the By-Laws of the California Medical Association (at page 23 of printed By-Laws), provides that any active member of a component county society who has been adjudged guilty (under the procedure set forth in Section 3, Chapter II of said By-Laws), of a violation of any of the provisions "of the principles of medical ethics promulgated from time to time by the American Medical Association" shall be subject to censure, suspension or expulsion by such component county society. Therefore, we must look to the principles of medical ethics of the American Medical Association in order to find the rules of professional conduct which govern members of the San Bernardino County Medical Society.

Section 4 of Chapter II of the Principles of Medical Ethics of the American Medical Association is entitled "Advertising" and a portion of said section reads as follows:

> Solicitation of patients by physicians as individuals, or collectively in groups by whatsoever name these be called, or by institutions or organizations, whether by circulars or advertisements, or by personal communications, is unprofessional. This does not prohibit ethical instructions from a legitimate advertisement of location, physical surroundings and special class, if any, of patients accommodated. It is equally unprofessional to procure patients by indirection through solicitors or agents of any kind, or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. . . . The publication or circularization of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not *per se* improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing and circularizing such cards.
>
> It is unprofessional to promise radical cures, to boast of cures and secret methods of treatment or remedy; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

Whether or not the use of a neon sign in front of a physician's office on the main street of a community constitutes the employment "of any methods to gain the attention of the public for the purpose of obtaining patients" is, of course, a question of interpretation of said Section 4 of Chapter II. It is not my function, in advising county societies with respect to procedure, to indulge in any opinion with respect to the proper interpretation of any of the principles of medical ethics. That problem is one which rests solely with the various county societies, the California Medical Association and, if need be, the Judicial Council of the American Medical Association. I am merely calling to your attention the particular principles of ethics involved and the question to be decided.

I note from your letter and the enclosed copy of a letter from the County Society dated October 5, that the San

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

Bernardino County Medical Society evidently has or contemplates establishing a "rule" with respect to the use of neon signs. If it is the intent of the Society by means of a "rule" or "resolution" to endeavor to establish a principle of professional conduct applicable to the use of neon signs, it is my opinion that such procedure would be very dangerous from the legal point of view. To explain, in the eyes of the law a member of the medical society is bound to observe the Constitution and By-Laws regularly adopted of his Society. If he fails to abide by the Constitution or By-Laws, he may be suspended from membership or expelled, after a full hearing conducted in accordance with the rules of procedure of the Society. Whether or not violation by a member of a simple rule or resolution adopted at a general meeting *which is not part of the Constitution and By-Laws* can be the subject of disciplinary action, is very questionable. Therefore, if the Society contemplates a specific rule of professional conduct relating to neon signs, it is my opinion that such rule should be presented to the membership in the form of an amendment to the By-Laws of the Society, and if adopted, should be adopted in the manner required by the By-Laws (Chapter X) for amendments thereto.

In regard to the matter of adopting rules of conduct by means of resolutions, it is my recollection that the Judicial Council of the American Medical Association recently, by letter, expressed its opinion not recommending such practice. In this connection, see California and Western Medicine, May, 1938, pages 364-365, and note the letter quoted under the heading: "Resolutions Establishing Principles of Ethics and Conduct," particularly the last paragraph thereof.

If I may be of any further assistance to you, please feel free to call upon me.

Very truly yours,

Hartley F. Peart.

111 Sutter Street.

* * *

Subject: An Example of Coöperation Rendered by a County Auxiliary in Work Against the "State Humane Pound Act"—Initiative No. 2

California Medical Association,
San Francisco, California.

Dear Doctors:—The Woman's Auxiliary to the San Diego County Medical Society wishes to assure you that they are anxious to coöperate with you in any way possible to educate the laity in regard to the "State Humane Pound Act."

The Legislative Committee of the Auxiliary, under the leadership of Mrs. W. M. Alberty, have been working actively for four weeks, contacting as many organizations as possible, arranging for speakers and distributing informative pamphlets.

We will hold our annual Health Institute on November 1. At each of the two meetings a doctor will speak on the "State Humane Pound Act." We expect a good attendance because our Institute has been made a Teacher's Institute by Mr. Crawford, superintendent of the San Diego schools. A copy of the program and a Pound Act pamphlet will be handed to every member of the Young Women's Christian Association Business Girls' Clubs.

We had a booth for this purpose at the San Diego County Fair at Del Mar last week. There was a two thousand word article against the Pound Act in the last Parent Teacher's Association *Courier* which has a circulation of nine thousand. There will be a similar article in the *County Graphic* which has a circulation of 83,000. There will be a paid advertisement in the *Thursday Club Bulletin* this month. There was a talk given at the last meeting of the Woman's Civic Center.

Twenty-five thousand pamphlets have been distributed among patients and members of women's clubs.

Seventy-two Parent Teacher's Associations have been contacted, thirteen P. E. O. Chapters, ten Delphian Clubs, the Jewish Women's Societies, all of the auxiliaries to the Veterans of Foreign Wars, Catholic Women's Societies, twenty women's clubs, Junior League, National Business and Professional Women, Soroptomists, all Masonic Women's Organizations, the Pan-Hellenic Group and the Women's University Club.

We shall be very happy to receive any suggestions which you may have to offer.

Sincerely,

(Mrs.) H. D. Newton,
Secretary.

COMPONENT COUNTY MEDICAL SOCIETIES

CONTRA COSTA COUNTY

The Contra Costa County Medical Society met on Tuesday evening, October 11, at the American Legion Hall in Walnut Creek. The Auxiliary joined the Society to hear Dr. A. M. Meads of Oakland discuss *Anuria and the Urologist,* and Dr. Carson Hunt of Oakland, who read a short paper on *An Explanation of Binocular Vision, Simplified.*

The Society voted its endorsement of the antivenereal disease campaign being launched in Richmond. Doctor Daily explained the organization of the campaign and its management by a citizens' committee with generous representation of the medical profession. Dr. J. C. Dement of the Venereal Disease Division of the State Department of Public Health explained the state-wide campaign against venereal disease and its relation to the local program. Doctor Condit, also of the State Department, and recently appointed syphilologist to conduct the venereal disease clinic at the Richmond Health Center, explained the plan of clinic management.

A committee of twelve, one member from each community in the county, was appointed to work with a like committee from the Auxiliary in distributing literature to be supplied by the California Society for the Promotion of Medical Research in the current campaign to defeat the "State Humane Pound Act," Initiative Proposition No. 2, on the November 8 ballot. The secretary of the county medical society will act as executive head of the committee.

The next meeting, to be held on November 8 at the Carquinez Hotel in Richmond, will be the annual business meeting, at which time officers for the coming year will be elected. The president, Doctor Marks, appointed Doctors Ford, Weil, and Hedges a nominating committee, to report at the November meeting.

Doctors Daily, Fraser, and McCullough were appointed a committee to arrange for the Society's annual Christmas party in December.

Thomas J. Dozier, *Secretary.*

SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was called to order by the president, Dr. Dave Dozier, on September 20, at the Auditorium, on Twenty-ninth and L streets. Seventy-two members and guests were present.

Dr. Harry Blackfield of San Francisco presented the paper of the evening. Doctor Blackfield gave a very instructive talk on *Plastic Surgery in General Practice,* stressing particularly plastic traumatic surgery of the face and of the hands. Lantern slides of the various types of skin grafts were shown. The discussion was opened by Dr. F. MacDonald and continued by Drs. R. Wallerius and D. Dozier.

Dr. J. B. Harris presented a case of *Scirrhus Carcinoma of the Thyroid* with marked skeletal metastases.

The applications for membership of Drs. A. F. Wallace and Curtis H. McDonnell were read for the first time.

Dr. Dave Dozier gave an oral report on the action taken in regard to the Pacific Employers' Insurance Company policy for the state employees. After some discussion by Doctor Wallerius, a motion was made and so passed that we submit the medical fee schedule of this company to the Council of the California Medical Association for its consideration.

Dr. F. F. Gundrum discussed the function of the *Medical Society of the State of California* and the value of its purposes to members of the California Medical Association.

G. E. Millar, *Secretary*.

SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held on Thursday, October 6, in the clubrooms of the Medico-Dental Building. The regular meeting was preceded by the customary supper meeting at the Hotel Wolf at 6:30 p. m. Seventeen members and guests were present. J. W. Barnes of Stockton read a paper on *Undulant Fever,* sketching the history, symptoms, diagnosis and treatment, which was extremely interesting and very well received.

The business meeting was called to order by the president, A. C. Boehmer, at 8:15 p. m. The applications of Doctors Lamb, Dietrich, and Faulkner having been favorably reported upon by the Admissions Committee, and there being no objections from the floor, they were declared elected to membership in the San Joaquin County Medical Society.

Dr. C. A. Broaddus reported on the progress of the Postgraduate Committee work. A progress report was made on the new By-Laws and Constitution by the committee drawing up the same.

P. J. Hanzlik, Professor of Pharmacology at Stanford University, presented a paper on *Bismuth in the Treatment of Lues.* The paper was illustrated by lantern slides and and blackboard drawings and was very instructive, and received considerable discussion from the floor.

There being no further business to come before the Society the meeting was adjourned at 10 p. m. and refreshments served.

G. H. Rohrbacher, *Secretary*.

SAN MATEO COUNTY

The meeting of the San Mateo County Medical Society was held at Pier 33, 1447 Burlingame, Burlingame, on September 28.

Doctor Ray announced that an application for membership had been received from Dr. Ivan T. Budaeff.

The secretary read a resolution concerning legislation directed toward compulsory premarital and prenatal tests for the detection of syphilis and gonorrhea which had been passed by the Board of Directors. There was some discussion of this resolution and Doctor Murphy suggested that further study of the problem should be made before the Society passed on the resolution. Accordingly, the president announced that a committee would be appointed to study the subject and report back to the Society at a subsequent meeting.

Doctor Gregory reported on a letter which had been received from the San Mateo County Tuberculosis and Health Society concerning the establishment of diagnostic chest clinics at Community Hospital. The Society voted against the establishment of such clinics, feeling that they would be unnecessary at this time.

The secretary announced that arrangements had been made to establish clinics throughout the county to supplement the work of the out-patient department of the Community Hospital. It was decided to have a rotating service, each doctor to be assigned for a period of three months, with the two following doctors on call during his period of service.

The question of physical examinations for public school children, which involved to some extent the whole issue of the public school health problem, was brought up and discussed by Doctor Knorp. After considerable discussion it was decided to refer the matter to the Public Health Committee for a report at the next meeting.

Dr. Karl Schaupp, the guest of the evening, was next introduced and gave a talk on the question of *Medical Insurance and the Set-up Now in Operation in San Francisco, Known as the City Health Service System.* Doctor Schaupp seemed to feel that Dr. Walter B. Coffey had done a great deal for the organized medical profession in connection with this proposition and also in connection with other matters in the past. He seemed to feel that organized medicine should coöperate with whatever groups or organizations supplying medical care on an insurance basis, whether lay groups or otherwise, until it (organized medicine) had something better to offer. He intimated that a study was being made at the present time concerning a plan which might be introduced at the next session of the legislature.

Following Doctor Schaupp's talk there was considerable discussion, especially on the part of Dr. Carl Hoag, in connection with the City Health Service System in San Francisco. The Society finally voted in favor of supporting the action of the San Francisco County Medical Society in connection with the City Health Service System in so far as the operation of this system affected the physicians practicing in San Mateo County.

J. Garwood Bridgman, *Secretary*.

SOLANO COUNTY

The Solano County Medical Society held a meeting in Vallejo on September 20.

Dr. Carlton C. Purviance, who has recently returned from Europe where he went with Doctor Eloesser to work for the American Hospital in Spain, and who visited in France, Germany, Austria, and Hungary, gave a very interesting talk on *Observations on Social Medicine* and the manner in which it works in those countries.

Applications for membership have been received from Dr. A. Frank Brewer, who has recently been appointed full-time health director in this county, and from Dr. H. Randall Madeley, who has come to Vallejo.

Dr. A. Frank Brewer will be the speaker at our next meeting at the Casa de Vallejo Hotel, to be held on Tuesday night, October 11.

John W. Green, *Secretary*.

TULARE COUNTY

The regular monthly meeting of the Tulare County Medical Society was held in the dining room of Motley's Café in Visalia on the evening of October 2 at seven o'clock.

Dr. Vern Mason of Los Angeles presented the main discussion of the evening. The subject had to do with rare and unusual diseases, their etiology, progress, and treatment. He talked upon *Ulcerative Colitis* and the allied conditions. He discussed acute disseminated erythematous lupus. There was a general discussion upon the subject of coccidioides and erythema nodosum.

Following the main address an informal round-table discussion was held concerning matters of importance to the members of the Society in general. A motion was made by Doctor Guido, and seconded by Doctor Ambrose, that two monthly meetings each year be devoted to matters pertaining to organization problems of the Society. The motion was unanimously carried. Questions of drug-store practice of medicine was considered. The question of fee schedule was discussed. It was recommended that members send suggestions to President Zumwalt concerning matters that they would like to have brought up at the next medical meeting.

IRVIN H. BETTS, *Secretary Pro Tem.*

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VENTURA COUNTY

The regular meeting of the Ventura County Medical Society was held at the Saticoy Country Club at Saticoy on Tuesday, September 13.

There were fourteen members present. The guests present were: Dr. and Mrs. John M. Askey of Los Angeles, Dr. and Mrs. Henderson and Dr. and Mrs. Markthaler of Santa Barbara, Dr. and Mrs. Harker and Dr. and Mrs. T. K. Miller of Oxnard, and Mesdames Coffey, Felberbaum, Strong, Mosher, Gronhovd, Porter, Garrett, D. G. Clark, and Morrison.

Doctor Askey addressed those present on the *Humane Pound Law*. Mrs. Henderson and Mrs. Markthaler spoke on *The Aims and Objectives of the Woman's Auxiliary*.

The names of Drs. T. K. Miller of Oxnard and James Moore of Ventura were presented for membership and their applications were turned over to the Board of Censors.

A brief report of the progress of the public Health Advisory Committee was given by the secretary. Doctor Wylie asked whether there would be any objection on the part of the Society if the Health Department made Wassermann tests on anyone who desired; these tests to be made for diagnostic purposes only, and those with positive reactions to be sent to their private physician for treatment.

* * *

The regular meeting of the Ventura County Medical Society was held at the Saticoy Country Club on Tuesday. October 11.

There were eighteen members present. The following guests were present: Dr. Arnold Kegel of Los Angeles; Drs. Daly, Fullenlove, and Witten of the County Hospital; Dr. Helen M. Bruckman of the Ventura School for Girls; Dr. R. K. Harker of Oxnard; and Dr. E. R. Cizor of Camarillo.

Dr. Arnold Kegel gave a résumé of the *Third International Goiter Conference* which was recently held at Washington, D. C.

Dr. James Moore and Dr. Theo. K. Miller were unanimously elected to membership in this Society. The names of Dr. Helen Bruckman, a transfer from Santa Clara County, Dr. Thomas M. Fullenlove, a transfer from Pike County, Kentucky, and Dr. R. K. Harker of Oxnord, a new member, were presented for the first time.

Doctor Homer made a motion that the Society go on record against the "Humane Pound Law," and that this decision be published in the various newspapers throughout the county, with the pertinent reasons on why we oppose the Initiative Act. The motion was seconded, and carried.

Announcement of the general meeting to be held at Saticoy, under the auspices of the Public Health Advisory Committee, was made by the secretary.

It was called to the attention of the members by the president that there were several insurance companies writing a broad form of health and hospitalization insurance in the county; these policies offering only a limited amount for sickness. Also that there had been several instances where the representative has attempted to force settlement for an amount less than their stipulated fees.

Doctor Homer asked what type of programs the members would like, and stated that the Program Committee would be glad to secure the type desired.

A. A. MORRISON, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (69)

Alameda County

Gerald Harry Gray
Albert Miles Griffin
Vivian Hamilton
Henri A. Shefoff
Bernice I. Swenson
Ossie F. Wilmeth

Kern County

Roderick A. Ogden
Lloyd N. Tarr

Los Angeles County

Anthony Ariana
John W. Beeman
Herbert C. Behrens
Harold Carroll Bernstein
Lewis Wine Bremerman
Kenneth Allen Crimson
Isaac F. Crosby
Robert A. Cunningham
E. H. Daniels
Roderick P. Deakers
William E. Delphey
Benjamin Einhorn
R. Bruce Eldredge
John Marshall Fernald
Charles A. Gallup
Garland F. Garrett
Alvin V. Gerty
Glen Earl Glasgow
George E. Hall
Clarence M. Leggitt
James H. Macauley
Henry Joseph Magid
John G. Manning
Abner Jules Moss
Aumond D. Myers
Jesse Blain Naftzger
Arcadio Tigrio Obando
Lester A. Riskind
Julius Lewis Samuels
Nathan A. Sapiro
Adele S. Schmidt
Percy K. Telford
Stanley James Walters
Walter Williams
Ashby C. Willmott
Leon Z. Wolpe
Franklin Earl Woodhull
Warner Richard Wright
Harry Arthur Zide

Merced County

V. S. Briden
J. J. McNearney

San Bernardino County

Frances Franklin

San Diego County

Mathew Howard Ames
Ralph L. Hoffman
David A. Pohlman

San Francisco County

Earl W. Escher
Samuel A. Goldman
Albert L. Leveton
Ernest G. Lion
Peter Manjos
Roland Foster Marks
John E. Paulson
James Francis Shea
William A. Sumner
Francis E. West

San Joaquin County

Edward Faulkner

Santa Cruz County

Sheldon K. Wirt

Siskiyou County

Wilbur C. Hayden
Richard W. Jones

Stanislaus County

Ernest A. Weizer

Ventura County

James W. Moore

Transferred (2)

Everett M. Stone, from San Diego County to Riverside County.

Frederic D. Ullrich, from Riverside County to San Diego County.

In Memoriam

Abraham, Vestal Raul. Died at Los Angeles, October 10, 1938, age 53. Graduate of Rush Medical College, University of Chicago, 1913. Licensed in California in 1929. Doctor Abraham was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Dillon, Edward Thomas. Died at Los Angeles, October 14, 1938. Graduate of the University of Southern California School of Medicine, Los Angeles, 1901, and licensed in California the same year. Doctor Dillon was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Fredrick, Marcus White. Died at Brentwood, September 4, 1938, age 77. Graduate of the Leipzig Universität Medizinische Fakultät, Saxony, 1888. Licensed in California in 1895. Doctor Fredrick was a retired member of the San Francisco County Medical Society, the California Medical Association, and the American Medical Association.

✝

Jones, Wendall Ambrose. Died at Riverside, September 20, 1938, age 64. Graduate of Ohio Medical University, Columbus, 1898. Licensed in California in 1915. Doctor Jones was a member of the Riverside County Medical Society, the California Medical Association, and the American Medical Association.

✝

King, Joseph Millen. Died at Los Angeles, October 7, 1938, age 66. Graduate of the University of Southern California School of Medicine, Los Angeles, 1895. Licensed in California in 1896. Doctor King was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Lepper, Lawrence Ewald. Died at Los Angeles, September 18, 1938, age 52. Graduate of the University of California Medical School, San Francisco, 1912, and licensed in California the same year. Doctor Lepper was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

✝

Montgomery, Mary Freyer. Died at San Francisco, August 30, 1938, age 40. Graduate of the University of California Medical School, San Francisco, 1925, and licensed in California the same year. Doctor Montgomery was a member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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Pierce, Sterling Newton. Died at Los Angeles, September 30, 1938, age 51. Graduate of the College of Physicians and Surgeons, Los Angeles, 1917, and licensed in California the same year. Doctor Pierce was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

Pindler, Louis Alden. Died at Los Angeles, October 9, 1938, age 46. Graduate of New York University College of Medicine, New York, 1920. Licensed in California in 1921. Doctor Pindler was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Wickman, Herman John. Died at Riverside, September 29, 1938, age 60. Graduate of the State University of Iowa College of Medicine, Iowa City, 1906. Licensed in California in 1923. Doctor Wickman was a member of the Riverside County Medical Society, the California Medical Association, and the American Medical Association.

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OBITUARIES



Joseph Millen King
1872–1938

At ten o'clock on Friday morning, October 7, 1938, Dr. Joseph M. King died suddenly while sitting in his automobile in front of his late residence at 1221 South Lake Street, Los Angeles. He was preparing to call upon a patient at the time. It was his sixty-sixth birthday.

To those who were intimate with him his death was not wholly a surprise, as it was known that he was suffering from coronary heart disease for several years.

Joseph Millen King was born near Bailie, Parish of St. James, New Brunswick. When he was twelve the family moved to Beaver Falls, Pennsylvania. Joseph did his premedical work at Geneva College, Pennsylvania. In 1889, with his people, he moved to San Diego County, California, where he taught school at Campo for two years. In the fall of 1892 he entered the College of Medicine, University of Southern California, graduating from the same on June 4, 1895. The school was then on Aliso Street, and the late Dr. Joseph P. Widney was the dean. Doctor King was licensed in 1896 and became a member of the County and State Medical Associations in April, 1898. He served as secretary of the County Association in 1904 and was president of the same in 1905, the youngest man who has ever been chosen to that position. He was president of the California Medical Association in 1933. He was a charter member of the Barlow Library. He was also a founder and later president of the Los Angeles Clinical and Pathological Society. During 1910 he was president of the Southern California Medical Association. He was professor of medicine during the first decade of the century at his Alma Mater while the school was on North Broadway, and was clinical professor of medicine at the time of his death. Doctor King did graduate work in medicine at

Johns Hopkins University in 1904 and at Vienna, Munich, and Berlin in 1912–1913. During the earlier years of his practice he shared offices with the late Doctors George L. Cole, Norman Bridge, H. B. Stehman, and Stanley P. Black.

Throughout his professional life Doctor King was a member of the staff of St. Vincent's Hospital. He was at one time chairman of the staff, and lectured for many years to the nurses in the training school. He was a member of the staffs of several other Los Angeles hospitals.

Doctor King led a very active life. He was an occasional contributor to periodical medical literature. He had a large private practice and was frequently called in consultation by his colleagues, who regarded him highly as an internist. Those who knew him well are proud to have been his friends. His forceful personality and sage counsel will be greatly missed by all.

E. M. Pallette
C. R. Howson

✝

Marcus White Fredrick
1861–1938

The San Francisco County Medical Association lost an old and respected member in the recent passing of Doctor Fredrick at the age of seventy-seven years. His death occurred on his beautiful ranch at Brentwood, where he had spent the last eight years of his life since his retirement from practice. Doctor Fredrick was born in New York City, being brought West in early childhood to spend his boyhood around Virginia City, in Nevada. He left there at the age of eleven to attend the French Gymnasium at Berlin. Returning to this country he attended the University of California and then transferred to Harvard. Receiving a degree there, he returned to Europe to study medicine in Leipzig. He received his M. D. in 1888. He remained in Berlin, studying with the famous Koch and then worked for a year in the Royal Ophthalmic Hospital, Moorfields, and the Golden Square Nose and Throat Hospital in London. In 1890 he entered upon practice in Seattle. Staying but a short while, he returned to Vienna to study the eye and ear. He then went to London to the above-mentioned hospitals as an assistant. In 1895 he came to San Francisco, starting practice in his specialty. For over twenty years he was professor of diseases of the ear in the University of California Medical School. He retired from practice in 1930, at the completion of thirty-five years of active practice in this city. During that time he was oculist and aurist in the French Hospital.

Surviving him are his wife, Mrs. Pauline A. Fredrick, his son, Captain Robert T. Fredrick, U. S. A., and a daughter, Mrs. G. R. Andrews of Stockton.

H. M. F. Behneman.

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Herman J. Wickham
1878–1938

Dr. Herman J. Wickman died at the Community Hospital on September 29, 1938, after a short illness. He was born on July 19, 1878, in New Hampton, Iowa, and was graduated from the University of Iowa, practicing there before he came to California twelve years ago. He settled in Perris and practiced there four years before coming to Riverside, where he practiced until his death.

He leaves a wife and two sons to mourn his death. In his passing, Riverside has lost a well-beloved and highly respected citizen. He was deeply sympathetic, and inspired hope and confidence in all with whom he came in contact.

The medical fraternity has lost a real friend, and he will be greatly missed in our community.

C. R. Geith
A. W. Walker

Wendall A. Jones
1874–1938

The passing of Dr. Wendall A. Jones came as a great shock and brought sadness to the hearts of all who knew him. Doctor Jones was born in Illinois on August 12, 1874, and died on September 20, 1938. He was graduated from the Ohio Medical University in 1898. He practiced in Ohio sixteen years before coming to Riverside. He served eighteen months in the Spanish-American War in the Philippines, and twenty-three months at Camp Kearney during the World War, later going to France. In 1922 he was appointed medical superintendent of the Riverside County Hospital on part time, holding this position for two years. In January, 1935, he was appointed full-time County Health Commissioner, holding this position until his death.

In many homes his kind ministrations during the hours of sickness and sorrow made him beloved by his fellow men. He went through life with the constant thought to do humbly and efficiently his work as a true practitioner. He was beloved for his gracious courtesy and broad tolerance of the views of others. He will be greatly missed in our community and especially to all members of the medical profession who knew him. He leaves a wife and four daughters and a brother to mourn his death.

C. R. Geith
A. W. Walker

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Mary F. Montgomery
1898–1938

A brilliant, searching mind ceased its many activities in the field of medicine in the recent tragic passing of this young colleague. Cut down at the young age of thirty-eight, with a promising career ahead, knowing for some time of her inevitable end, she maintained a remarkable philosophy and stoicism. Doctor Montgomery was graduated academically and medically from the University of California, interning at the San Francisco Hospital, and spending three years in Salt Lake City practicing internal medicine. Restless in the routine of practice, spurred on by an investigative mind, she turned to research because of its intellectual stimulus. In 1931 she received her Ph.D. in physiology at the end of her work with Doctors Carlson and Luckhardt of Chicago. Doctor Montgomery was assistant clinical professor of surgery at the University of California Medical School at the time of her death. Her outstanding work, aside from practice, was in the field of the function and control of the mucous glands of the mouth. This led to further valuable study on many aspects of the function of the salivary glands. She did extensive work on the effects of the barbiturates on bodily function, as well as the effect of large doses of irradiated ergosterol upon blood chemistry.

Her avocation was painting and music. She turned to the former in the last years of her life. Her passing on August 30 ended the needed activities of a brilliant student and truly scientific mind. I wish there were room here to print even a tenth of the eulogies given to me by the innumerable friends who remain to hold her in admiring and loving memory.

H. M. F. Behnemann.

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Sterling N. Pierce
1887–1938

An obituary notice of the usual type cannot be adapted to fit the present needs. No formal phraseology is adequate to describe the life of Sterling Pierce, and no stilted expressions of sympathy can picture the widespread heartbreak at his untimely death.

The son of a pioneer Los Angeles family, his preliminary and medical education was acquired in his native state. After graduation from the University of Southern Cali-

fornia, and internship at the Los Angeles County General Hospital, he allied himself with the Medical Corps of the Navy, in which thereafter he maintained a Reserve commission. Following the hostilities he set himself earnestly to the acquirement of a broad obstetrical training. To this end he spent considerable time at the Chicago Lying-In Hospital, where he served as resident, and in several foreign centers. Throughout his activities the influence of Doctor deLee was readily discernible, for Sterling was an enthusiast in the use of local anesthesia and his skill in the handling of this agent was remarkable. Always willing to adopt new procedures and, if they proved satisfactory to his critical observation, then to advocate them with great enthusiasm. His was not an unconsidered effervescence but rather an appreciation of logical innovations. As an example. his adroitness with Kielland forceps was developed only after long and careful study. Only perfection in technique could satisfy him.

Of a highly critical nature, his criticism was directed chiefly at himself, almost never at others. Where his correction was necessary, Sterling usually pointed out the proper procedure by recounting a real or fanciful similar experience, and his instruction thus was absorbed without rancor. His willingness to extricate his fellow practitioners from their obstetrical difficulties was known to all. It is safe to say that few gave more fully of their time and of their abilities to others of the medical profession, and his usual response to any proffer of recompense was a bluff assertion that he really had done nothing.

His greatest joy, aside from the problems of practice, was obtained from hunting. The opening of the dove or deer season usually found Sterling afield. It is, therefore, peculiarly fitting that his remains are now interred at Hemet, near the woods and fields over which he had tramped so happily.

It is difficult to realize that no longer will his hearty chuckle echo through the corridors, difficult to adjust ourselves to his departure—yet, in the broadest sense, he is not gone, for his life lives in the hearts of his family, in the lives of literally hundreds of children whose safe delivery he accomplished, and in the memories of us—his friends.

William Benbow Thompson.

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William W. Wymore
1866–1938

"Sometimes death is a punishment; often a gift; it has been a favor to many." To William Watson Wymore it recently brought surcease from pain, and terminated some months of illness.

Doctor Wymore was born and reared in Grass Valley, and, like many another of his time, worked hard at various tasks, with the goal of medicine ever ahead. Born in 1866, he was graduated from Cooper Medical College in 1895 and was licensed to practice that year. He continued for many years his anatomical teachings there, having been one of the original demonstrators of anatomy. Old Doctor Lane was the embodiment of Hippocrates to Wymore; he was a devoted disciple.

He, like other members of the "old guard" who survive him, started practice in the Mission district. Lifelong friendships with Doctors Graves, Coffey, Austin, and Gallwey arose from this early association. He was an early member of the Board of Health. He was instrumental in having Doctors Geiger and Wilbor appointed to the positions they hold today.

During his entire life he was the "family doctor," and did a great deal of surgery and obstetrics.

Dignified but genial, quiet but quick at repartee (which he loved), he enjoyed, as did his friends, a great sense of humor.

As he lay these last months, thinking, as doctors must at the end of the trail, we hope he found solace in the knowledge of his great unselfishness. Patients came first, but all his life he was a friend of the young graduate. Quietly, but successfully, he always seemed to have the time, the interest, and the right berth for the right man.

Thus, more than one generation is grateful to him and mourns his passing.

H. M. F. Behneman.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION †

MRS. CLIFFORD A. WRIGHT.....President
MRS. FRED H. ZUMWALT.....Chairman on Publicity
MRS. FRANK H. RODIN..Assistant Chairman on Publicity

Component County Auxiliaries

Alameda County

Mrs. Frank Baxter presided at the luncheon meeting of the Woman's Auxiliary to the Alameda County Medical Association on Friday, October 21. About one hundred members were present.

A program of unusual interest was presented. Mrs. Elizabeth Lossing, police woman and head of the crime prevention division of the Berkeley Police Department, spoke on *Protective Worw with Girls.* Mrs. Lossing has been in charge of this work since its inception in 1925.

Miss Martha Tabb, gifted young cellist, played two numbers, accompanied by Mrs. Louis Henry Dyke, a member of the Auxiliary.

The hostess of the day was Mrs. Robert Sutherland, past president, and Mrs. LeRoy W. Hahn was chairman of reservations.

An enthusiastic and loyal group of members, headed by Mrs. Kenneth Neilsen, have been working with outstanding success for the Community Chest campaign.

Mrs. Grant Ellis, *Publicity Chairman.*

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Marin County

The Woman's Auxiliary to the Marin County Medical Association met for dinner at the Marin County Golf and Country Club at 6:30 p. m. on Thursday, September 22. Due to illness, the president, the first and second vice presidents were unable to preside, therefore the secretary, Mrs. Harry Hensler presided.

Mesdames Clifford A. Wright, state president, E. Eric Larson, state secretary, and Fred H. Zumwalt, state publicity chairman, were the honored guests.

After dinner a short business meeting was held. Ways and means for increasing the Auxiliary treasury were discussed.

Mrs. Robert Furlong, program chairman, introduced the guests, who spoke informally to the members. Interest in present legislative measures was emphasized. Plans for the organization and future programs were outlined.

Mrs. E. DeLancey, *Publicity Chairman.*

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Frank H. Rodin, Assistant Chairman of the Publicity and Publications Committee, 2457 Bay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Rodin, and must be sent to her before publication takes place in this column. For lists of state and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

Merced County

The first meeting of the year of the Merced County Auxiliary was held on September 22 at the Hotel Tioga, at the dinner hour. The president, Mrs. Ed Soderstrom, presided. Twelve members were present, including three new members.

After dinner the goal for the year's undertaking was discussed. It was agreed that magazines, cards, and handicrafts be placed in the tuberculosis and children's wards of the county hospital.

A benefit bridge dessert was held on October 12 at the Woman's Club House to raise funds to help carry on the year's program.

Mrs. Max Brannon, *Publicity Chairman.*

Orange County

The Orange County Auxiliary met for luncheon on October 4 at Daniger's Tea Room in Santa Ana. The new president, Mrs. Hiram Currey, presided and greeted all the members and guests.

Mrs. K. H. Sutherland presented Dr. W. W. Roblee, President of the California Medical Association, who gave an informative talk on *Modern Trends in Medicine.* Doctor Roblee urged special attention to legislative problems, to study bills and amendments in order that members may be able to inform others of the difference between legislation good or bad for public health.

Mrs. Roblee was introduced and in response invited the members to visit the Riverside County Auxiliary.

Committee chairmen reported on the year's outlines, and the membership chairman reported eleven new members had expressed the desire to join the Auxiliary.

Mrs. G. Wendell Olson, *Publicity Chairman.*

San Diego County

The first fall meeting of the Woman's Auxiliary to the San Diego County Medical Society was held at 12:30 p. m. on September 13, in the House of Hospitality, Balboa Park. There were forty-four members present.

This meeting was arranged as a social function making it possible for all members to become better acquainted. After luncheon some enjoyed bridge and others knitted, and all spent a very pleasant afternoon.

Mrs. H. K. Albertson, *Publicity Chairman.*

Santa Clara County

On September 19, the spacious home of Mrs. Russell V. Lee, on the Stanford campus, was the setting for a delightful tea given in honor of Mrs. Clifford A. Wright, President of the Woman's Auxiliary to the California Medical Association, and her corresponding secretary, Mrs. E. Eric Larson. The officers and board of directors of the Santa Clara County Auxiliary were the hostesses. About fifty members were present to greet the distinguished visitors.

Mesdames John Hunt Shepard and Philip Wise presided at the beautifully appointed tea table, which was decorated with bright autumn flowers. Many pretty floral decorations throughout the house reflected the autumn season.

Mrs. Wright spoke briefly on the purposes of the Auxiliary, the ideals for which we must strive, and offered her help and advice at all times.

Mr. Clark Cypher, attorney from Palo Alto, gave a short talk on Bill No. 2, the Humane Pound Act, which will appear on the November ballot, urging all to work unceasingly against it.

The first regular meeting of the Santa Clara County Auxiliary was held on October 3 at the Leon Ghetti Tea Room near Los Gatos. Mrs. M. D. Baker, president, presided, with about thirty members present.

After luncheon, Mrs. Russell V. Lee, program chairman, introduced the speaker, Mr. Adron Beene, whose subject was *Medical Legislation.* He spoke of the need to sponsor good health laws and work against those which would be detrimental to the health of the public.

Mrs. Baker asked for volunteers for the Community Chest campaign and to assist the Santa Clara County Tuberculosis Society to reorganize the files of the mailing list for the distribution of Christmas Seals.

Mrs. Charles Moore, *Publicity Chairman.*

Infectivity of Calcified Tuberculous Lesions.—Whether or not calcified foci from childhood infections with tuberculins are possible sources of endogenous reinfection in later life has been a disputed question for a half century. In 1884 Dejerine studied calcified lesions in twelve tuberculous persons dying in the fourth, sixth, seventh, and eighth decades of life. He failed to find tubercle bacilli in the calcified lesions. Material from four of these lesions was injected into guinea pigs with uniformly negative results. From these scanty data Dejerine concluded that the infectious agent disappears quantitatively from tuberculous lesions as soon as calcification is complete. Quite different results were subsequently reported by Rabinowitsch, Schmitz, and others, who tested the guinea pig infectivity of thirty-two calcified foci from human necropsies and obtained positive results in seventeen cases.

Doubt as to the reliability of previous conclusions was afterward expressed by Griffith, who found that in 176 trials chronic tuberculous tissues failed to infect guinea pigs, although acid-fast bacilli were readily demonstrated by animal inoculation. By animal inoculation Opie and Aronson demonstrated tubercle bacilli in apparently noninfected portions of tuberculous lungs, suggesting that the alleged infectivity of calcified foci was due to slips in technique or unavoidable contamination of the calcified area.

Since there is at present no unanimity of opinion as to the probable infectivity of chronic tuberculous lesions, Feldman and Baggenston of the Mayo Clinic restudied this problem with the latest technical methods. Necropsy material was obtained from sixty-eight persons ranging in age from seven to ninety years who had died from causes other than tuberculosis. Evidence of previous pulmonary infection with tubercle bacilli was observed in all cases, the presumptive childhood tuberculosis appearing as encapsulated, caseous or calcified areas in the pulmonary tissues or the tracheobronchial lymph nodes. These encapsulated lesions were excised and emulsified in sterile sand and the emulsions thus obtained planted on two or more particularly favorable culture mediums. From two to six duplicate guinea pigs were inoculated subcutaneously with 1 to 2 cubic centimeters of each sample. All animals that died within twenty-one days were discarded, death presumably being due to primary or allergic toxicity of the emulsion or to nontuberculous virus or bacterial infection. The surviving guinea pigs were killed at the end of from eight to fourteen weeks and meticulously examined macroscopically, microscopically and culturally for evidence of tuberculosis.

Positive results were obtained in only one of the sixty-eight chronic tuberculous foci studied. In none of the other foci was the presence of tubercle bacilli demonstrated by either cultural or inoculation methods. The authors concluded from this evidence that in the majority of cases the "primary complex" in tuberculosis passes through an involutional process unfavorable to the continued viability of Mycobacterium tuberculosis. In their opinion endogenous reinfection from definitely capsulated, sclerotic, caseous or calsified tuberculosis of childhood is unlikely to occur.—*Journal of the American Medical Association,* August 20, 1938.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, St. Louis, Missouri, May 15 to 19, 1939. Olin West, M. D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

California Medical Association, Hotel Del Monte, May 1 to 4, 1939. George H. Kress, M. D., Secretary, 450 Sutter Street, San Francisco.

* * *

Pacific Coast Society of Obstetrics and Gynecology, Los Angeles, November 30 to December 3. T. Floyd Bell, M. D., Secretary, 400 Twenty-ninth Street, Oakland.

Western Surgical Association, Omaha, December 2 to 3. Albert H. Montgomery, M. D., Secretary, 122 South Michigan Boulevard, Chicago.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of November is as follows:

Thursday, November 3—KECA, 10:45 a. m., The Road of Health.
Saturday, November 5—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, November 10—KECA, 10:45 a. m., The Road of Health.
Saturday, November 12—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, November 17—KECA, 10:45 a. m., The Road of Health.
Saturday, November 19—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, November 24—Thanksgiving Day.
Saturday, November 26—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

San Diego County Medical Society Postgraduate Conference in Gynecology.—The Conference was conducted by a local committee, in conjunction with the Committee on Postgraduate Activities of the California Medical Association, on October 17, 18, 19, and 20. The program follows:

October 17, Mercy Hospital—Menstrual Disorders, Dr. Daniel G. Morton, Associate Professor of Obstetrics and Gynecology, University of California.

October 18, Red Cross Building, Naval Hospital—Cancer: Cervix and Uterine, Doctor Morton.

October 19, University Club—Pelvic Infections: (1) Obstetrical Infections, Dr. William Benbow Thompson, Los Angeles. (2) Gynecological Infections, Dr. Erle Henriksen, Los Angeles. Dinner 6:30 p. m. $1.00.

October 20, Mercy Hospital—Benign Lesions and Uterine Tumors, Dr. Donald G. Tollefson, Assistant Professor of Obstetrics and Gynecology, University of Southern California.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

"Fortune's" Article on the "American Medical Association."—On October 27 the November issue of *Fortune* will be released. A box caption, in referring to its article on the American Medical Association, states:

"The businessman is not the only one with a government problem on his hands. The doctor also has that particular headache and has not yet learned how to cure it. Herewith is the story of the embattled American Medical Association and the dramatic social and political issues with which it is now confronted."

Members who are interested in organization work may wish to read the article.

President Sproul Urges the Defeat of Pound Bill at Election.—Strongly urging the defeat of the so-called State Humane Pound Act, President Robert Gordon Sproul of the University of California has written the California Society for the Promotion of Medical Research, terming the proposed act a definite and continuing obstacle to the conservation and increase of the minds and bodies of the people of the state. President Sproul said:

"It is my hope that the efforts of the California Society for the Promotion of Medical Research to make public the dangers of the proposed State Humane Pound Act will lead to its overwhelming defeat by the voters of California.

"It is obvious that the passage of this bill will increase the cost of necessary disease prevention and control by authorized research centers. At a time when the tax burden for public welfare activities is a real problem to the average citizen this fact cannot be dismissed too lightly. But adding unnecessary costs to health protection is only one of many faults in the provisions of the proposed pound law.

"The real objection to the bill is that it attempts to enact antivivisection legislation which the people and the legislature have already refused to accept, by concealing its real purpose under a cloak of sentiment. Every dog owner, including myself, is ready to do everything to protect these friends of mankind from needless exploitation. But the proposed bill appears to be less concerned with the protection of dogs than it is with handicapping medical progress.

"If the Pound Act were to be passed, the University of California and other research centers would be faced with the choice of giving up many studies aimed at the improvement of health and the increase of happiness for animals as well as human beings, or of going into the business of raising laboratory animals on breeding farms. Certainly, the bringing of more dogs into the world when so many are already wandering about without owners or homes is not progress.

"On the other hand, the abandoning of research into the disease origins of preventable suffering and death would be a calamity for mankind as well as a betrayal of the responsibility which mankind has assumed for the welfare of the animals which it has domesticated. There is nothing more basic to improvement of human and animal welfare than the control and prevention of disease. The future of civilization, spiritually as well as materially, depends upon the thinking of healthy minds and the action of healthy bodies. To the conservation and increase of such minds and bodies the State Humane Pound Act would be a definite and continuing obstacle."

Pan-Pacific Surgical Association.—The third congress of the Pan-Pacific Surgical Association will be held in Honolulu on September 15 to 28, 1939.

This will be the third meeting of the Pan-Pacific Surgical Association, the two former ones having been held in 1929 and 1936, also in Honolulu. An invitation is extended to all surgeons of the California Medical Association to meet, in Honolulu, outstanding men from countries of the Pacific area, including Australia, New Zealand, China, Japan, Java, Canada, and the United States, for an interchange of surgical thought and for the purpose of bringing about better understanding through personal contact among the surgeons of these countries.

There will be sections in fractures and orthopedics, general surgery, gynecology, motion pictures, neurosurgery, ophthalmology, otolaryngology, roentgenology, plastic surgery, thoracic surgery and neurology—all headed up by outstanding men as chairmen for the United States and equally prominent men as chairmen for the Australasian section. The Congress affords not only participation in interesting scientific papers, but a very enjoyable vacation in the "Paradise of the Pacific."

Communications for information should be directed to Dr. George W. Swift, 902 Boren Avenue, Seattle, past president of the Association; Dr. Frederick L. Reichert, Stanford University Hospital, San Francisco, program chairman for the United States; Dr. Howard Updegraff, 6777 Hollywood Boulevard, Los Angeles, program vice-chairman; or Dr. Forrest J. Pinkerton, secretary-treasurer of the Association, Young Building, Honolulu, Hawaii.

"March of Life" Is Medical School Display for 1939. How medical science has turned aside the stream of plagues, disease, childbirth suffering, and accident mortality, is to be displayed in a sixteen-unit exhibit by the University of California as part of its participation in the Golden Gate International Exposition in 1939. The display, which has been titled "The March of Life," will give visual proof of what medicine and surgery have accomplished since the time of Hippocrates, father of the healing arts. While it will show something of the inroads of disease, chief emphasis will be placed on prevention and cure.

With Dr. Karl F. Meyer, director of the Hooper Foundation for Medical Research, as the chairman of the exhibit committee, and Dr. Langley Porter, dean of the University's medical school, directing the enterprise, the exhibit is rapidly assuming shape and form.

Unit No. 1 will itself be titled "The March of Life," with a series of thirty-five transparancies showing the history of the individual from the prenatal period to old age, with the various bodily changes involved. The second will contain a key index and general descriptive panel which will describe the whole exhibit in detail. The third will deal with the animal kingdom, showing how animals are both the friend and foe of man. This will consist of a large painting 11 feet wide and 7 feet high, illuminated from behind, and emphasizing particularly the processes of disease transmission. The fourth unit will show the prenatal period of human life. The fifth, sixth, and seventh will deal with the diseases of children and their prevention, while the eighth will compare growth changes through childhood to adolescence. The ninth will depict the healing mysteries and near miracles of surgery, while the tenth and eleventh will feature the place of the physician in the scheme of life and some of the diseases that he has conquered.

The twelfth unit will be given over to a display on arthritis, illustrated by colored lantern slides. The thirteenth will deal with the right and the wrong way of arriving at old age. The fourteenth will show the percentage shifts in population between people of various ages. The fifteenth will be a display covering nutrition, both good and bad, while the sixteenth will demonstrate the services rendered by the University's medical center to its own students.

Cancer Commission Pathological Conferences.—The next Microscopic Conference of the Cancer Commission of the California Medical Association will be held in the Science Building at the University of Southern California Medical School, University Avenue and Thirty-sixth Place, Los Angeles on Sunday, December 18, at 9:30 a. m. The following announcement has been received from Dr. Otto H. Pflueger, Secretary of the Cancer Commission of the California Medical Association, the roster of whose members is printed in each issue of California and Western Medicine, on advertising page 2.

"In order that the committee in charge of the Conference—Dr. A. G. Foord, Dr. Newton Evans, and Dr. E. M. Hall—may go over the cases that are suitable, we are asking that, if you have a case which you would like to present, you send in two or three sample slides and a case history for the Committee's perusal as soon as possible.

"If a case is accepted, the Committee will notify you and ask that you make up a set of fifty slides for distribution. The Committee is particularly anxious to obtain slides which are made of properly fixed material, so that the slides will be satisfactory for diagnosis.

"We are particularly interested in getting the cases ready several weeks before the meeting, and would appreciate receiving sample slides and histories by the middle of November. We feel that if slides can be sent to the pathologists throughout the state two weeks before the meeting, the cases can be diagnosed more satisfactorily and the discussion will be much more interesting.

"Kindly send your preliminary histories and slides to the Chairman of the Committee, Dr. A. G. Foord, Huntington Memorial Hospital, 749 Fairmont Avenue, Pasadena. He will get in touch with you concerning the cutting of fifty sections if your cases are accepted."

Disasters Caused by Man Are Worst of All.—Sudden disasters, such as earthquakes, hurricanes, great fires and tidal waves do not drag after them the serious problems of large-scale malnutrition that are occasioned by the man-made disasters of deforestation and soil erosion.

This was stated by Dr. Alfred C. Reed, Professor of Tropical Medicine in the Hooper Foundation of the University of California, in a recent address before the Third International Congress of Tropical Medicine and Malaria, meeting in Amsterdam, Holland. Doctor Reed is president-elect of the American Society of Tropical Medicine, and will assume the presidency at the annual meeting of the Society in Oklahoma City, Oklahoma, on November 14–17.

Doctor Reed states that every migration is related in some way to nutritional needs, even those occasioned by differences in religion, political and intellectual persecutions, and in the lust for simple conquest and power.

"The chief causes of population movements are essentially economic." Doctor Reed told the Congress. "These economic causes become objective and operative in various forms, chiefly in the form of interference with food supply. The great age of exploration in the sixteenth century was motivated by the need for spices to relieve the monotonous dietary of Europe. Interference with food supply is usually based on climatic change (historically), on political conditions, on the devastations of war and natural disaster, and on population pressure.

"War is the worst enemy of all for overpopulation unless one accepts an ideology entirely foreign to sound scientific method and social rights. There seems but one other method of control in case population density is to be scientifically correlated with available food supply. That is birth control. It must not be overlooked that at least a partial solution of the problem can be found in scientific elimination of the burden of the socially and mentally unfit, the confirmed criminals, and the insane. Size of any biologic unit—in this case a race or a nation—is no criterion of desirability. Quality and not quantity must be the goal."

Stanley P. Black Memorial Lectures.—The 1938 lecture was given in the Stanley P. Black Memorial Hall, 65 North Madison Avenue, Pasadena, on Tuesday, October 11, at 8:15 p. m.

The topic, "The Differential Diagnosis of Cardiac Pain, Including that Due to Coronary Occlusion," was presented by Dr. Frank N. Wilson, Professor of Internal Medicine, University of Michigan Medical School, Ann Arbor, Mich.

Southern California Medical Association.—The ninety-ninth semi-annual meeting of the Southern California Medical Association was held at the headquarters of the Los Angeles County Medical Association, 1925 Wilshire Boulevard, Los Angeles, on Friday and Saturday, October 28 and 29. As guest speaker the Association secured Dr. Lloyd H. Ziegler, Associate Medical Director, Milwaukee Sanitarium, Wauwatosa, Wisconsin. Doctor Ziegler was formerly professor of neurology and psychiatry at Albany Medical College.

Black Widow Spider Control Is Discovered.—A lizard, known popularly as the San Diego alligator lizard, has been found to be a biological control for the dread black widow spider. Dr. Raymond B. Cowles, zoölogist on the Los Angeles campus of the University of California, has made a study of the problem of black widow spiders, and has found that the San Diego lizard destroys both spiders and their eggs as quickly as it can find them.

"There are many reports that the black widow spider is increasing," said Doctor Cowles. "There is no way to verify this statement since there has never been any count of the spider. A few years back there were a great many of the spiders to be found about my own home. I introduced a number of the San Diegan lizards, and it was not long until I found it almost impossible to discover a single black widow anywhere about my place.

"This lizard is harmless in so far as human beings are concerned, and if we could introduce and protect them in reasonable numbers, then the black widow would become very difficult to find. But the common house cat preys upon the lizards about as avidly as the lizard preys upon the spiders."

Pound Act Would Be Hopeless Handicap to Science. "There is no way in which biological and medical research departments of the University of California can meet the provisions of the proposed State Humane Pound Act which will appear on the November ballot without greatly increasing the cost of public welfare activities and seriously handicapping efforts to protect public health."

This conclusion was reached today by a committee of scientists of the University under the chairmanship of Dr. Karl F. Meyer, Director of the Hooper Foundation for Medical Research, following study of the provisions of the Act, and conferences on ways and means of meeting them.

Doctor Meyer states that in the considered judgment of the committee, whatever benefits the Act may have been designed to bring will be far outweighed by disadvantages which involve the health and happiness of the entire state.

Public announcement of these findings, Doctor Meyer added, is felt to be a duty of the committee, inasmuch as the inclusion of the word "Humane" in the title of the Act will undoubtedly incline voters who are unfamiliar with the dangers of the law to vote for it. It is believed that the great majority of voters, once they are cognizant of the facts, will vote "No."

"If the State Humane Pound Act were to be passed," members of the committee point out, "biological and medical research centers would be obliged to abandon animal studies for the control and prevention of diseases of mankind and of farm stock and pets, or to go into the difficult and expensive business of breeding animals for that especial purpose. When thousands of uncared for and unwanted animals are already roaming about, frequently in a half-starved condition, and public funds must be spent to dispose of them, it is neither logical nor humane to bring more animals into the world at additional cost."

Facts gathered by the committee show that the present ability of veterinarians to care for the sickness and suffering of pets, and the success of the medical profession in raising the average longevity of American citizens from forty years to sixty years in two generations, is based, in the last analysis, upon the type of investigations which the State Humane Pound Act would make difficult or impossible. For this reason citizens are urged to vote "No" on the State Humane Pound Act.

Stable Fly Theory of Poliomyelitis Due for Revival. The theory, advanced years ago, that the stable fly or some other insect may carry the causative organism or factor of poliomyelitis, or infantile paralysis, is due for revival by science in the light of studies made within the past decade. This is stated by Dr. L. L. Lumsden, Director of the United States Public Health Service for the New Orleans area, who is at the University of California to deliver a series of lectures on epidemics and epidemiology.

The facts on which the insect hypothesis is based are that the disease has a higher incidence in the rural areas, proportionately speaking, and it usually occurs at the season of highest incidence of intestinal infectious diseases. The possibility of a lower animal reservoir should also be entertained, but more work is needed at once on the stable fly and other types of biting insect, Doctor Lumsden said.

The fact that the disease in its epidemic form tends to confine itself to certain areas, has also called for much speculation regarding local causative factors, he said. Undoubtedly many human beings in these areas who might be considered as carriers have traveled to other points without spreading the disease. In some of the earlier studies scientists were able to transmit a form of the disease to monkeys from the stable fly, but these cases were so few that the fly theory was finally discarded as untenable.

The San Joaquin County public health district, the objective of a number of ranking medical men throughout the country, was declared by Doctor Lumsden to be one of the finest of its type in the United States. Together with a number of the members of his lecture classes, Doctor Lumsden visited Stockton to confer with the officials of the district. The district rather than county organizations in San Joaquin County allows of a particularly effective health set-up, he said.

First Tests Made on New Medical Cyclotron.—The medical cyclotron, huge peace-time engine of healing elemental forces, being reared by the University of California to fight for the preservation and protection of human health and happiness in the midst of war alarms, is doing its first experimentation. While not yet fully geared and ready to produce the radio-active substances that science is to use in an enlarged and intensified campaign against many diseases, it can receive and engender certain magnetic energies useful in the field of physics. It still lacks the vacuum chamber and target chamber which will figure later in production of the radio-active substances to be used in widespread treatment of disease, but enough of the mechanism has been assembled to enable Dr. Francis A. Jenkins, Associate Professor of Physics, to make further determinations on the splitting of spectroscopic lines in the magnetic field. Thus Doctor Jenkins becomes the first to employ the new cyclotron experimentally, and its performance is being watched with keen interest by the whole world of science.

It is expected that the cyclotron will not be in full operation for four or five months, but, in the meantime, much

preparatory work is being done against the time when the great 225-ton engine will begin its atom-smashing, or, in other words, its "clinical" career. In one phase of this preparatory work, Dr. A. Marshak of the John Simon Guggenheim Memorial Foundation, New York, is experimenting with both x-ray and with neutron rays from the University's present cyclotron to make a comparison of the effect of both types of irradiation on both plant and animal chromosomes. The knowledge of such reactions may give more information on the functions of chromosomes, but the first determination that this scientist is seeking concerns the variability and sensitivity of these cell factors and their response to both types of irradiation. In this way it is hoped to determine what radiation dosages could be used with the cyclotron to get comparable effects in chromosomes of different subjects.

Great impetus has been given this work by the installation of a 220,000-volt x-ray machine by the General Electric Company. This has its own cubicle in the new radiation laboratory, set some distance from the cyclotron room, but within easy reach of the larger engine. The x-ray room contains the latest mechanism for measuring dosages, and should play a big part in making exact comparisons between neutron and x-ray irradiation.

San Francisco Heart Committee.—The San Francisco Heart Committee of the San Francisco County Medical Society will hold its Ninth Annual Postgraduate Symposium on Heart Disease on November 15, 16, 17, 1938. Sessions will be held at San Francisco Hospital, Stanford University Hospital, University of California Hospital, and Laguna Honda Home.

The registration fee is $15, which includes membership in the California Heart Association, and a syllabus of the symposium. Registration closes on November 9, 1938, at the office of the San Francisco Heart Committee. Doctors registering after that date are asked to report for registration at the University of California Hospital, Third and Parnassus avenues, on Tuesday, November 15, between 8:30 and 9:30 a. m.

The morning meetings will be devoted to study groups limited to five or ten doctors. A number of these sections will be held each morning at the various hospitals.

The morning sessions will include demonstration of patients presenting problems in heart disease, evaluation of specific diagnostic procedures and therapy, differential diagnosis, and treatment. Opportunity will be given for questions and discussion, and for personal examination of the patients who are presented.

General sessions will be held each afternoon. On Tuesday afternoon the meeting will take place at Stanford University Hospital at which time the diagnosis and treatment of heart irregularities will be discussed.

On Wednesday afternoon problems in degenerative heart disease will be the subject for consideration at the University of California Hospital.

The subject for the Thursday afternoon session at San Francisco Hospital will be therapy of heart failure.

General sessions will also be held each evening. Technical demonstrations in heart disease are included in the Tuesday evening program at the University of California Hospital and Stanford University Hospital. The Wednesday evening meeting will be a public health meeting on heart disease, with Dr. J. C. Geiger presiding. This meeting will be held at the Veterans' Auditorium. It will be an open meeting, to which the public is invited.

Special plans for the closing session on Thursday evening, November 17, are being arranged. This will be a dinner meeting at which all doctors who have registered for the symposium will be guests of the Heart Committee.

The program for the symposium is being arranged by Doctors John J. Sampson (chairman), Walter H. Brown, Richard D. Friedlander, Gordon E. Hein, William J. Kerr, William W. Newman, J. Marion Read, and William P. Shepard.

A copy of the program will be mailed to you on request. Address application for registration to Dr. William W. Newman, Secretary, San Francisco Heart Committee, 604 Mission Street, Room 802, San Francisco.

Press Clippings.—Some news items from the daily press, on matters related to medical practice, follow:

Chiropractic Defined

Court Limits Its Scope

Boundaries within which the system of Chiropractic can be practiced were defined yesterday in a ruling by Superior Judge Van Nostrand.

Ruling on a definition suit of the California chiropractic act brought by M. James McGranaghan, attorney-chiropractor, Judge Van Nostrand decided:

"Chiropractors are limited to the manual adjustment of subluxations and misalignments of the segments of the spine when such subluxations and misalignments cause occlusions of nerves and interference with the transmission of nerve force at or within the spinal column."

Any other practices or measures, the court ruled, are exclusively within the scope of physicians, surgeons or osteopaths, and it is unlawful for chiropractors to indulge in them.

So long as they do not violate provisions of the State medical act, osteopathic act or dental act, chiropractors can employ the use of "chiropractors' tables, hammers, towels, etc.," the court ruled.—San Francisco *Chronicle*, October 7.

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Migrant Camps Plan Advanced

Grand Jury Proposes Resricted Areas as Sanitation Measure

Bakersfield, Oct. 3.—(Exclusive)—Recommendation by the Kern County Grand Jury for migratory workers to be required to live in limited camping areas was made to the Kern Board of Supervisors today.

The grand jury advocated establishment of county camps similar to the Federal camps at Shafter and Arvin. In event that the Federal government does not set up more of these camps here, the grand jury recommends the county establish such camps at Rockpile, Mountain View, Delano and McFarland areas for three hundred families each.

The purpose of these supervised camps would be to prevent sporadic bivouacs and insanitary conditions attending such practices in other sections of the county. The agricultural laborers are needed to harvest seasonal crops, the report stated.

A charge of 10 cents per day would be made for camping privileges and four hours' work per month for each man in camp, which would provide tents, showers and washing equipment.—Los Angeles *Times*, October 4.

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Yuba Medical Office Extends Service to Seven Counties

Marysville (Yuba County), Oct. 11.—The Agricultural Workers Health and Medical Association office here today took over the work of seven Superior California counties with the closing of the Woodland, Yolo County, office.

Miss Gwendoline Harris, in charge of the Marysville office, said an additional full time clerk will be placed here and that the combined offices will care for the medical needs of agricultural workers in Yuba, Sutter, Butte, Colusa, Glenn, Yolo, and Sacramento counties.

633 Patients are Aided

Previously the Marysville office covered Yuba, Sutter and Butte counties and portions of Colusa and Glenn counties.

Since its establishment here last June the association, financed through federal funds, has given medical assistance to 633 patients.

Exclusive for Workers

The aid is exclusively for agricultural workers and their families who have been residents of the State for less than a year. Patients are not obligated to pay for medical, dental treatment, hospitalization or drugs, but may pay the costs at such time as they are able.

The local office has a panel of forty-two physicians and dentists who give treatment in their individual offices and who are paid fixed fees by the association.—Sacramento *Bee*, October 11.

A Good Work

The Agricultural Workers Medical and Health Association organized to care for migrants in California, reports eight hundred cases of malarial fever discovered and treated in migrant camps during the early fall. The disease, instead of developing into epidemic proportions, was controlled within three days.

In all, 5,888 individuals were aided, showing that more than three thousand families were dependent upon the association for medical care.

What a plight these migrant workers would be in were it not for the provisions that assure them adequate medical attention. And how disastrous it might be if an epidemic broke out in one of the camps and spread to nearby communities!

The medical association is performing a worthwhile and necessary work. It serves a dual purpose, for it safeguards the health of the migrants and protects areas near these camps from being threatened by infection.—Sacramento *Bee*, September 27.

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County Hospital Aides Honored

Certificates Given Thirteen Doctors for Service

Certificates of honor were issued yesterday by the Los Angeles County Board of Supervisors to thirteen physicians and surgeons who for ten years or more have been giving their professional services free to the county by being members of the attending staff of the Los Angeles County General Hospital.

Those who received the certificates are: Dr. George Henry Kress, 727 W. Seventh Street, 31 years; Dr. Henry Herbert, 1127½ Fourth Avenue, 30 years; Dr. Charles C. Browning, 25 Kewen Place, San Marino, 24 years; Dr. Walter L. Huggins, Pacific Mutual Building, 24 years; Dr. William H. Kiger, 1930 Wilshire Boulevard, 24 years; Dr. Frank J. Leavitt, 111 N. Manhattan Place, 24 years; Dr. Clarence H. Criley, Chapman Building, 20 years; Dr. Dwight M. Green, 727 W. Seventh Street, 19 years; Dr. J. E. Clemons, 307 W. Eighth Street, 17 years; Dr. Burdette S. Frary, 5625 N. Figueroa Street, 17 years; Dr. Henry Lietrich, 1136 W. Sixth Street, 14 years; Dr. John W. Shuman, 3780 Wilshire Boulevard, 14 years; and Dr. Eliot Alden, 6253 Hollywood Boulevard, 11 years.—Los Angeles *Times*, October 27, 1938.

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Medical Society Stands by Doctor in Insurance Case

Fresno, Oct. 11.—(Exclusive)—The governors of the Fresno County Medical Society today issued a public statement absolving Dr. G. K. Nider, city physician and head of the City Emergency Hospital, of charges on which Mayor Homan recently issued an order dismissing Doctor Nider.

The mayor charged Doctor Nider wrongfully appropriated to his own use more than $2,000 paid by the State Compensation Insurance Fund for treatment given city employees. The mayor charges the money should have been paid into the city treasury.

Doctor Nider asserted the money was paid him for extra services given city employees and not within the scope of the work required by his post as city physician.—Los Angeles *Times*, October 12.

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Plan Nonprofit Hospitals Here

California's ten southern counties soon will become the national testing ground for a coördinated nonprofit hospital-medical service, if plans entertained by leaders of the two groups reach maturity.

That was the statement made today by Ritz E. Heerman, president of Associated Hospital Service of Southern California and also secretary of California Hospital, following his return from Dallas, Texas, where he attended the recent convention of the American Hospital Association.

Several medical groups are surveying the Southern California situation and leaders of the already organized hospital groups stand ready to offer the medical fraternity their full coöperation as soon as the medical profession has completed a workable program, Heerman said.

Renewed interest of the medical profession in a combined hospital-medical nonprofit service for large groups of employed wage earners was aroused by the action of the house of delegates of the American Medical Association at its meeting in Chicago.—Los Angeles *Herald-Express*, October 10.

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Medical Society Hits Pound Move

A campaign by the Fresno County Medical Society against the State Humane Pound Act initiative on the November general election ballot as proposition No. 2 was launched yesterday with an announcement of opposition to the measure by Dr. L. R. Nielson, secretary.

The Society, the California Society for the Promotion of Medical Research and the California Medical Association are opposing the proposition on the ground it will interfere with research and experimental medicine, hinder medical practice, and is a disguised anti-vivisection bill.

Doctor Nielson announced a dinner meeting of the Society October 11 at the University and Sequoia Club with the speakers to be W. W. Roblee, Riverside, president of the state association, who will report on a national medical session at Chicago on the economics of medicine and George H. Kress, San Francisco, secretary of the state association.—Fresno *Bee and Republican*, October 6.

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Geiger Back With Honors

Home from the Antipodes on the Matson liner *Mariposa*, Dr. J. C. Geiger, San Francisco's director of public health, today proudly displayed a gold and black shoulder patch for his flowing academic robes.

The patch proclaims Doctor Geiger an honorary member of the Central Medical School of Fiji, a school which he has befriended for many years.

The Suva institution has honored only two other men in the same manner. One is Dr. Victor G. Heiser of "An American Doctor's Odyssey" fame. The other is Richard Crooks, who raised thousands of dollars in a concert, aiding the move to rear distinguished Fijian medical talent.—San Francisco *Call-Bulletin*, September 7.

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The Real Reason

The city health officer declares that "rabies can never be controlled if citizens allow their dogs to run at large." The doctor is quite right, but even keeping every citizen's dog carefully penned up won't eradicate rabies as long as stray dogs—and there are hundreds of these—are permitted the free-run of the streets.

There's the real reason for the continued rabies menace. And no "study" is needed to convince the council or the health officer of that deplorable fact. And, by the city manager's own "say so" there's already a law empowering enforcement officers to shoot or corral such dogs on sight.

When dog owners know if they allow their pets to run at large they are in danger of being shot, they'll keep them in their own backyards. Then, with an "open season" on all strays, rabies can be controlled, and, within a couple of months, entirely eradicated.—San Jose *Mercury Herald*,

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Northern Ills Told by Physician

The Eskimo and the white man living in the Arctic are heir to the same ills and die of the same diseases as people living in temperate zones, said Dr. Victor E. Levine, Tuesday, just returned to San Francisco after his fourth medical research trip, which he conducted in conjunction with Rev. Bernard Hubbard's geological expedition in Alaska.

Doctor Levine, whose research is sponsored by the United States Department of Health, said the white man in the Arctic lives to practically the same age, sixty years, as man in temperate zones. He said the average span of life for the Eskimo is twenty-four years.

The scientist, formerly professor of biological chemistry and nutrition at Creighton University School of Medicine, has made his research expeditions in the interest of determining whether or not the Arctic is suitable for habitation by white men.

"A study of the health problems of the Eskimos," Doctor Levine said, "indicates that the diseases to which they now succumb result from lowered resistance to infection induced by malnutrition.—Santa Clara *Journal*, October 4.

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American Federation of Labor Will Act on Socialized Medicine Plea

Resolutions Favoring Project Will Be Offered at Houston by California Delegation

Urgent appeal for legislation favoring a national plan of socialized medicine or compulsory health insurance will be presented to the Houston convention of the American Federation of Labor this week on behalf of the California State Federation of Labor, Edward D. Vandeleur, secretary, announced yesterday.

A resolution covering the subject will be presented to the American Federation of Labor meeting by Tom Nickola, State Federation delegate. It is based on six proposals concurred in by the recent Santa Barbara convention.

Huge Loss Cited

This resolution cites the importance of health to the wage earner, recognition of the workers' needs by the recent National Health Conference called by President Roosevelt,

and present inability of lower paid workers to benefit from advancements in medical science.

"Medical surveys show that there is a direct relationship between income and need of medical care and that those having smaller incomes are unable to get adequate care," the resolution states, and adds "that more than one billion work days are lost annually due to sickness, and that the industrial worker carries the greater part of the loss from this expense.

Plea to Workers

Legislation on the subject will be pressed before the next session of Congress and the next State Legislature, Vandeleur said, while urging all workers to request their congressional Representatives and Senators to support measures for compulsory health insurance, with national and state governments, employer and employee participating.

The State Federation will also work for Federal grants as an aid to supplement state and local funds for the establishment of rural hospitals in districts where privately owned hospital facilities are inaccessible to many because of high priced services.

Two of the resolutions on the health matter were offered by Typographical Union, No. 21, of San Francisco, through Delegate Bert Allyn.—San Francisco *Examiner*, October 3.

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Grange Does Not Approve Plan of Federal Doctors

The vigorous campaign now in progress in support of a federalized medical program which shall provide more physicians for rural areas, but under government supervision as well as selection, is not supported by the National Grange, although the latter is everywhere recognized as the chief spokesman for the rural welfare. At a recent hearing in Washington, when a socialized medical program for rural areas was strongly advocated and vigorously opposed by respective groups, the National Grange presented a strong statement through its Washington legislative representative, Fred Brenchman, which makes very clear the Grange attitude on this question.

It is the belief of this great farm organization that the present lack of rural medical service is due to a faulty system of medical education, which requires such a long and expensive period of preparation before the physician is allowed to enter practice. More than ten years ago the National Grange took a stand on this question, advocating the increase in general practitioners for country service, in contrast to the extreme swing toward the specialist, whose education and equipment must necessarily be so expensive.

The Grange advocates no lowering of medical standards, but does believe that it is possible to acquire a proper medical education on the basis of a high school education and four years of subsequent training, provided that the latter shall include at least one year of practical hospital experience. In this opinion many distinguished physicians in the United States concur, and if such a training will produce competent physicians, it is the belief of the Grange that many more practitioners for rural areas and the smaller towns can easily be made available; thereby solving the present medical problem without the expenditures of vast sums of money on a federal program and the extension still further into American life of the "socialized idea," to which the Grange has never given its approval.—Sacramento *Grange News*, September 20.

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Pay Patient Plan Talked by Grand Jury

Suggestions for operation of the new county hospital, now nearing completion, were considered at a meeting of interested groups with the hospital committee of the grand jury late Thursday afternoon.

Whether pay patients should be admitted was one of the questions considered by the group, which went into various phases of the county health setup, according to Mrs. Jo Allyn Clark, chairman of the hospital committee.

No conclusions were reached, she said.

It was decided to send questionnaires to individual members of the Butte County Medical Society to obtain their views.

San Joaquin Plan

Method of operating the San Joaquin County Hospital, where pay patients are admitted, was explained by members of a former grand jury and members of committees from the Butte County Farm Bureau and the Pomona Grange which visited the Institution. They included A. L. Chaffin, a grand juror, Mrs. John Caughey of the farm bureau, and Mrs. Carolyne Smith and Mrs. Veronica Henderson of the Grange.

Others who attended the meeting, held in the courthouse, included Dr. L. A. Jacoby, county health officer and ex officio county physician; Dr. N. T. Enloe of Chico and Archie Allen, superintendent of the county infirmary.

Other meetings are contemplated.

No definite date has been set for opening of the new hospital.—Oroville *Mercury*, October 7.

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Parents Rebuff Doctors in Rabies Peril

Two young Menlo Park high school pupils, bitten last Thursday, by a rabid dog, went calmly to their classes today, their wounds untreated.

County Health officers, balked by the children's parents, stood by helplessly, unable to interfere, though they feared that without medical aid the youngsters may be doomed.

Steadfastly the parents, their names withheld by the county officers and by school authorities, refused to allow Pasteur treatments to be given their children, a boy and a girl.

They based their refusal on religious reasons.

"We don't think it's necessary," they insisted.

Four other persons, two children and two adults, were bitten by the same dog. They were given medical treatment immediately. The animal, a stray fox terrier, died last week in the Palo Alto Animal Shelter. Examination proved the animal was infected by rabies.

School and health authorities, aroused by Dr. R. J. Gerlough's report on the dead dog, went to the parents, informed them that without the Pasteur treatment it was probable, though not certain, that the children would be infected. The infection, in any case, would not become apparent for several weeks, but the parents were willing to risk their children's lives.

Both sets of parents were equally certain they would not change their minds.

"My child's wound is only trivial," one mother said. "Even if the treatment were given, they are not guaranteed effective. I don't see why so much fuss is being made."

The other parents also were unwilling to change their minds.

"We have discussed every possibility," they declared. "The scratch is slight, there was no blood drawn. We won't alter our decision."

Dr. J. C. Geiger, San Francisco health officer, pointed out that a wound is not necessary to contraction of hydrophobia. He cited cases in which mere handling of an infected animal transmitted the disease to a human, and urged that every child who handled the dog be treated.

The youngsters were bitten as they boarded a bus at Santa Cruz and Johnson avenues, Menlo Park, on their way to Sequoia High School. Since then they have continued to attend classes as usual.

First to be bitten by the mad dog was a Menlo Park housewife. She told authorities the animal entered her yard, started to attack her child who was playing nearby. The mother thrust out her hand and the terrier sank his teeth in it. He clenched them so tightly that neighbors had to pry the hand loose.

The dog ran to the bus stop, nipped at the heels of one of the children. Rather than have her stockings torn she picked the dog up, carried it to the bus, where she set it down. The animal ran under the bus and one of the boys crawled under it. He was bitten on the hand. Two other youngsters were bitten as they petted the animal after it had been rescued.

The second adult, also a woman, was bitten after the bus left. The animal was captured after Doctor Gerlough got reports on the attacks.

Doctor Gerlough announced he was writing a letter to the parents of the two children who refused treatment, warning that they faced possible disastrous consequences.

There was a possibility that a quarantine would be placed on San Mateo County if further cases of rabies develop, Health Officer Dr. Charles Gans declared.

Santa Clara County has had several cases in the past few months, and it was feared that the infection was moving northward.

In Oakland two youngsters were bitten today.—San Francisco *News*, October 18.

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Single Health Unit Sought

Supervisor Pushes Plan to Consolidate City and County Work

A move toward consolidation of the county and city health departments was made yesterday when the Board of Supervisors, on motion of Supervisor John Anson Ford, instructed the County Bureau of Budget and Research and Wayne R. Allen, chief county administrative officer, to study the plan.

Survey Ordered

The board ordered the county officials to make a detailed survey of the possibilities of the consolidation by

means of a contract of health functions between the City of Los Angeles and the county and report their findings to the Mayor and City Council of Los Angeles.

It was also directed that the city government of Los Angeles be invited through its Mayor and Council, independently, to make similar studies as those made by the county officers.

Contract Proposal

The contract between the county and the city referred to would be similar to those now held by the county government with thirty-eight of the forty-four cities in the county—whereby the county health department performs the health services for the cities.

The supervisor said preliminary estimates by health authorities foresee a probable reduction in the city tax rate for public health service of from 35 to 50 per cent in the event of a consolidation of services, resulting in a possible annual saving to the city taxpayers of from $150,000 to $200,000.

Parrish Asserts Plan Would Add to Costs

City Health Officer Parrish yesterday answered a proposal of Supervisor John Anson Ford that the Los Angeles county health department take over the city health service with the statement that the plan would greatly increase costs to the city.

"Never in the last fifteen years has the county department done its work half as cheaply as has the city department," Doctor Parrish said. He cited figures of 45 cents per capita for city service and $1.25 for the county.—Los Angeles *Times*, September 28.

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Dr. Emma Sutro Merritt Dies; San Francisco Gets Park

San Francisco had lost a pioneer and gained a park by death today. In the old house on wind-swept Sutro Heights, overlooking the ocean, death claimed Dr. Emma Sutro Merritt.

For many years she had lived in retirement there with the rich memories of her eighty-two years, all spent in San Francisco. Her mind was keen to the end, but her body long ago began surrendering to the ravages of time. Death came quietly.

Her Sutro Heights estate, studded with garden statuary and trees that whisper of a golden past, becomes the property of the city. She deeded it long ago, with the provision that she occupy the home until death.

Memorial to Father

She willed that it be maintained as a memorial to her father, Adolph Sutro, financier and mayor of another age.

Born in San Francisco December 15, 1856, and reared in comfort, Doctor Merritt chose medicine as a career in an age when women physicians were frowned upon. She married a physician, Dr. George Merritt. For twenty years she was staff doctor at Children's Hospital.

More than thirty years ago she was compelled to surrender her practice to manage the estate of her father.

Adopted Three Children

Childless, she adopted Edgar D. Sutro, son of her brother. He and his two sisters, Marian and Rose, made their home with her.

Funeral services will be at 10:30 a. m. tomorrow at Divisadero and Post streets. Interment will be at Cypress Lawn.—San Francisco *News*, October 18.

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Nursing Act Is Meet Topic

Proposed enactment of the Nursing Practice Act, which will be introduced to the California State Legislature in January, was presented by Mrs. Jennie W. Gardner, State legislative chairman for the California State Nurses Association, who spoke before the Yuba-Sutter group Friday evening. A dinner held in Hotel Marysville was attended by fifty members and guests.

The sole purpose of the proposed act is to guarantee the public the protection to which it is entitled and to maintain high standards of nursing and nursing education in the State.

As pointed out by Mrs. Gardner the act would protect the public, the physician and the institution by requiring that all persons nursing for compensation be registered nurses. It would create a board of nurse examiners, comprised of experienced registered nurses whose duties would be comparable in every way to those of the State Board of Medical Examiners, dental examiners, pharmacists and others devoted to safeguarding the public health. The five would be appointed by the governor.

The act provides for the regulation of schools of nursing and the maintenance of high educational standards. There would he no restriction for licensed nurses. All graduate nurses who now hold a certificate of registration would be eligible to a license by the new board, it was said.

Mrs. Gardner pointed out its benefits and the advantages of an all-nurse board.

Miss Frances Switzer presided and introduced the speaker. Senator W. P. Rich was one of the invited guests. —Marysville *Appeal-Democrat*, October 1.

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Fishbein Fights United States Medical Research Plan

American Medical Association Spokesman Insists Individual Efforts Should Be Free From Politics

Chicago, Oct. 8.—(UP)—Dr. Morris Fishbein, editor of *The Journal of the American Medical Association*, took exception last night to statements that medical research should be coördinated under Government supervision.

"The history of medicine," he said, "has been based on the individual efforts of many. Only the politician could disparage the contributions of medicine to public health."

He is spokesman for organized medicine in its fight against Government plans to prosecute the American Medical Association for "boycotting" coöperatives and low-cost clinics in violation of anti-trust laws. His statements were in reply to Dr. Thomas Parran, surgeon general, United States Public Health Service. Both spoke at day-long ceremonies yesterday in connection with the dedication of a research building in North Chicago.

Doctor Parran had said public health had become a people's cause and it appeared "logical and desirable that the Federal Government assume a larger responsibility for leadership in scientific research."—San Francisco *News*, October 8.

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State Medical Examiners Retained

Examiner Bureau, Sacramento, Oct. 17. — The State Board of Medical Examiners reëlected its entire incumbent slate of officers here today, retaining Dr. William B. Molony of Los Angeles as president.

Dr. Clark L. Abbott, Oakland, was reëlected vice-president, and Dr. Charles B. Pinkham, San Francisco, secretary-treasurer. It was Doctor Pinkham's twenty-fifth consecutive election as secretary-treasurer.

Both he and Doctor Molony have been members of the Board since its inception in 1913. Doctor Molony has been president since 1933.—San Francisco *Examiner*, October 18.

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Public Works Administration Grants Million for San Francisco Hospitals

Sum Added to Bond Issue Provides $2,283,470 Toward Building and Modernization

SPLIT THREE WAYS

Laguna Honda and Hassler Health Farm to Share Fund With Main City Institution

San Francisco yesterday was assured of one of the most complete and modern city hospital systems in the world when the Federal Public Works Administration announced a grant of $1,027,562 toward a hospital construction program here.

With $1,255,908 provided from the $1,600,000 hospital bond issue voted last November, the grant will enable a $2,283,470 building and modernization program to get under way by January 1 with completion slated in two years. The balance of $344,082 remaining from the bond issue will be retained as a cushion.

Geiger Elated

Dr. J. C. Geiger, city health director, received news of the grant enthusiastically, declaring:

"This means the most marvelous hospital setup I know of.

"When the program is completed," he said, "all our hospital needs, except emergency hospitals, will be taken care of for many years to come."

The $2,283,470 expenditure will be split among Laguna Honda Home, San Francisco Hospital and Hassler Health Farm in San Mateo County as follows:

Laguna Honda—$1,017,016 for a new 450-bed chronic disease ward, remodeling another ward, and reconstructing old wards for use of ambulatory patients and personnel, plus equipment.

To Isolate Cases

San Francisco Hospital—$426,872 for additional facilities, principally x-ray, and modernization of kitchen and dining rooms, plus equipment.

Hassler Health Farm—$590,478 for a series of new buildings, a new ward for chronic tuberculous, fire protection

equipment, sewage disposal plant, a building for convalescents and a ward for subnormal children.

An item of $249,104 covering preliminary costs, engineering, legal, administrative, and miscellaneous expenses, and interest during construction will be spread among all three projects.

The new construction means, Doctor Geiger explained, that for the first time the health department will be able to centralize different types of patients each in one institution, with considerable savings resulting.

Chronic Disease

Chronic disease cases will be moved out of San Francisco Hospital to Laguna Honda Home. Tuberculous patients will be transferred from the same institution to Hassler Health Farm. As a result San Francisco Hospital will become the first time devoted solely to acute medical and surgical cases, fed to it by the emergency hospitals, Doctor Geiger said.—San Francisco *Examiner*, October 8.

* * *

State's Blind Get $192,481

Sacramento, Oct. 19.—(INS)—The Social Security Board in Washington today approved an allocation of $192,481 to go to 5,682 sightless in California receiving state aid in November and December, it was announced by Mrs. Florence L. Turner, state director of social welfare.

Mrs. Turner said the average payment would be $47.86 per month.—San Francisco *Call-Bulletin*, October 19.

* * *

Medical Insurance Plan Urged by Cleveland Doctors

Cleveland, Sept. 9.—(AP)—Directors of Cleveland's Academy of Medicine stepped into the middle of "socialized medicine" discussion today with a plan through which employed persons could pay $7 to $9 a year to insure themselves against a maximum of $126 in doctors' bills incurred in the course of hospitalization.

The directors said they would submit the proposal to the academy's membership—a majority of Cleveland's physicians and surgeons—as soon as details are decided.

Plan Restricted

The plan, designed solely to cover serious accidents or illnesses, would benefit only those patients sent to hospitals. It also would be restricted to members of the Cleveland Hospital Service Association. This organization, the academy said, "now has more than 100,000 subscribers to whom twenty-one days of hospital service is furnished in any one year for a prepayment of $7.20 to $9 annually" under a program described as "ethical and actuarially and socially sound."

The academy's proposal would provide, for matching fees, similar medical service benefits—payment at $6 a day for a maximum of twenty-one days. Total fees thus would run around $15 to $18 a year, and potential benefits $252.

Deducted from Pay

The Hospital Service Association serves principally persons with incomes from $1,000 to $2,600 a year, those upon whom it considers the burdens of illness fall heaviest. Employers deduct its fees from the pay of participating employees, and forward them to the association. For additional fees a member may obtain benefits for his family—even including obstetrical care after the one year's membership.

Dr. Milton B. Cohen, chairman of the committee which drafted the medical service project, said:

"It is our hope that, if practical in Cleveland, this plan will point the way for a national attack upon the problem of meeting the burden of catastrophic illness."—Los Angeles *Times*, September 10.

* * *

Health Plan Forecast

Denver, Sept. 8—(AP).—The medical profession will be able to create a satisfactory plan to provide adequate medical care for low-income groups, in the opinion of Dr. Irvin Abell of Louisville, Kentucky, President of the American Medical Association.

Proposals advanced by the recent National Health Conference will be brought before a special session of the Medical Association's House of Delegates Friday in Chicago, Doctor Abell said in an interview here last night. He predicted the delegates would remain in session until they evolve a plan that may be submitted to Congress.

He said the medical profession had no objection to three proposals adopted by the National Health Conference in Washington:

An annual federal appropriation for preventive medicine, the spending of federal money for constructing and enlarging hospitals, and the granting of federal money to states for medical care of the indigent.

He declared unworkable and "dangerous to the high standards of the medical profession" proposals to establish a system of sickness compensation for workers and to set up accounts, similar to social security accounts, to pay for medical care.—New York *Sun*, September 8.

LETTERS

Subject: Scholarships in Rome.

Treasury Department
United States Public Health Service
Washington

September 24, 1938.

To the Editor:—The Carlo Forlanini Institute in Rome, which specializes in lung diseases and tuberculosis, organizes, yearly, postgraduate courses for physicians. These courses are held every year from January 15 to April 15. The program for the next course is as follows:

Pathogenesis of tuberculosis—The doctrine of respiratory trauma.

The biologic factors in the local reaction of pulmonary tuberculosis.

The various clinical forms of pulmonary tuberculosis.

Histology and general histogenesis of pulmonary tuberculosis.

Pathological anatomy of the various forms of pulmonary tuberculosis.

The collapse therapy (pneumothoracic) technique—indications—mechanism of action.

The pleural complications—treatment.

The surgical collapse therapy with particular reference to the methods of the School.

The principal forms of extrapulmonary tuberculosis.

Tuberculosis and pregnancy.

Tuberculosis in infancy.

Tuberculosis in upper air passages.

Tuberculosis of bones and articulations.

Hygiene and tuberculosis.

The fight against tuberculosis in Italy.

The Italian ambassador at Washington has offered two scholarships to American physicians selected by the Public Health Service. The physicians chosen will be exempt from registration and tuition fees, and will be granted a 50 per cent discount for travel on Italian state railroads.

The candidates should be graduates for at least three years, having practiced in a sanatoria or in medical or scientific institutions specializing in tuberculosis and lung affections.

I am wondering whether you would have a news item of these courses included in the next issue of your journal, with the notation that any physicians interested should apply directly to the Surgeon General of the Public Health Service, Washington, D. C.

Respectfully,

Robert Olesen,
Acting Surgeon General.

Subject: Concerning nurses.

American Nurses' Association

September 29, 1938.

To the Editor:—"What kind of nurse, Doctor," and "Where can I get her?" are questions frequently asked the physician who has just told the responsible member of a family that a nurse is needed to care for the patient.

Doctors invariably want safe nursing care for their patients. Service counts.

To help busy physicians answer questions about nursing care, the Nursing Information Bureau of the American

Nurses' Association has prepared two folders, called "Wanted, a Real Nurse, an R. N." and "Safe Nursing Care and Where to Ask for It." Copies of them are enclosed. They discuss briefly the significance of the term "Registered Nurse" and suggest how to secure the type of nursing service which may be needed.

Physicians may secure copies of the folders from the Nursing Information Bureau, 50 West Fiftieth Street, New York City. We would be glad to have you advise them of this offer through your magazine.

Sincerely yours,

MARY M. ROBERTS,
Director, Nursing Information Bureau.

Subject: Letter of appreciation for health lectures.

THE YOUNG WOMEN'S CHRISTIAN ASSOCIATION
SAN FRANCISCO

October 17, 1938.

George H. Kress, M. D.,
Secretary, California Medical Association.

My dear Doctor Kress:

I wish to express our appreciation for your coöperation in setting up our series of health lectures for this fall. The list of speakers and their subjects is very satisfactory. It is always amazing to me that such busy and important doctors can give their time to help us with our community health education projects.

We do want to thank you for arranging it for us. If at any time we can aid you in any way, please know we will be only too happy to do so.

620 Sutter Street.

Sincerely yours,

DORIS MCFARLAND,
Associate Director, Health and Recreation Department.

* * *

The subjects and names of speakers follow:

October 13—Cosmetic and Facial Blemishes, Laurence Taussig.

October 20—Eyes, George N. Hosford.

October 27—Medical Examinations, Donald Carson.

November 3—Menstruation and Its Disorders, Harold G. Watson.

November 10—Cancer, Ludwig Emge.

November 17—Venereal Diseases, E. K. Stratton.

Subject: Legal status of physicians under the Workmen's Compensation Act of California.*

San Francisco, October 18, 1938.

George H. Kress, M. D.,
Secretary, California Medical Association,
450 Sutter Street,
San Francisco, California.

Re: Pacific Employers' Insurance Company vs. Industrial Accident Commission and Kenneth Tator.

Dear Doctor:

The above-entitled action, which was decided several months ago by the California Supreme Court in favor of the injured employee, Tator, and Drs. J. Scott Quigley, Ergo A. Majors, and N. Austin Cary, and against the Compensation Insurance Company involved, has been appealed to the United States Supreme Court. Yesterday, October 17, the Supreme Court of the United States granted a writ of certiorari, which means that it will hear the case later this fall.

I am this day informing the doctors concerned regarding the action of the United States Supreme Court.

111 Sutter Street.

Very truly yours,

HARTLEY F. PEART.

* Under this caption this subject was discussed in the Medical Jurisprudence department of CALIFORNIA AND WESTERN MEDICINE, in its issue of March, 1938, on pages 215 and 216.

MEDICAL JURISPRUDENCE †

By HARTLEY F. PEART, ESQ.
San Francisco

Corporate Practice of Medicine: A Discussion of the Recent Decision of the California Supreme Court Denying to Capital Stock Corporations the Right to Control or Select Physicians

In December, 1935, the District Court of Appeal for the First Appellate District, decided in *Pacific Employers Ins. Co.* vs. *Carpenter,* 10 Cal. App. (2d) 592, that an insurance company could not lawfully issue a medical and surgical insurance policy under the terms of which the insurance company would furnish to its policyholders medical and surgical services through certain designated physicians. The District Court of Appeal held that neither a corporation nor any other unlicensed person may engage directly or indirectly in the practice of medicine and from this premise reasoned that it was likewise contrary to the law for an insurance company to undertake to furnish to its policyholders the professional services of physicians and surgeons designated, selected or employed by it.

A few months later the District Court of Appeal for the second Appellate District, in *Benjamin Franklin Life Assurance Co.* vs. *Mitchell,* 14 Cal. App. (2d) 654, also held that an insurance company could not lawfully issue a policy of insurance under which medical services would be rendered to policyholders through physicians in effect selected by the company. In this case the insurance policy proposed to be issued apparently provided for freedom of choice of physician by the policyholder, but at the same time policyholders were *required* to execute a proxy to a committee of company officers under the terms of which the committee selected the physician to render services.

After the foregoing decisions of the District Court of Appeal, it was generally considered by legal writers (Notes, 25 Cal. Law Rev. 91; 10 So. Cal. Law Rev. 329; 30 Ill. Law Rev. 533), that in California, at least, it was firmly settled that a private corporation could not engage in the practice of medicine. It was further generally assumed that it was also the law that a corporation or any other unlicensed person which attempted to designate or select a physician and surgeon to whom patients must go in order to receive the benefits of a contract, was in effect practicing medicine and surgery in violation of the rule forbidding corporate practice.

However, at least one corporation organized for profit and engaging in the *business* of selling membership certificates entitling the holder to medical and surgical services only from physicians selected by the corporation, evidently felt that the last judicial word had not been said on the subject. The corporation mentioned, *i. e.,* Pacific Health Corporation, continued to issue membership certificates and to furnish medical services through designated or selected physicians. Thereupon, the Attorney-General's office, acting on the relation of the Board of Medical Examiners,

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

commenced an action against the Pacific Health Corporation, seeking an order of court restricting Pacific Health Corporation's corporate powers so that selection of physicians by it would necessarily cease.

When this action came before Judge Goodell of the Superior Court in San Francisco, it was decided in favor of the plaintiff and an order was made prohibiting the defendant, Pacific Health Corporation, from continuing its past activities with respect to the furnishing of medical and surgical services. Pacific Health Corporation thereupon appealed to the Supreme Court of California and the decision of that court was rendered on September 21, 1938. (See *People* vs. *Pacific Health Corporation,* 96 Cal. Dec. 349; also CALIFORNIA AND WESTERN MEDICINE, October, 1938, page 306.)

The facts involved were stated by the Supreme Court as follows:

> Defendant Pacific Health Corporation, Inc., is a corporation organized under the general corporation law of the State of California, with its principal place of business in San Francisco. Upon application of persons in good health, the defendant issues a contract by the terms of which defendant undertakes to pay for services rendered by physicians, hospitals, ambulance and medical laboratories under certain circumstances, and the applicant pays the required sum or premium therefor. When a contract holder becomes sick or is injured, defendant advises him from whom these services are to be obtained, that is, the physician, hospital or ambulance available to him. After the services are rendered, defendant pays the charges. Defendant keeps a list of physicians and surgeons approved by it, and to obtain the benefits of the service the contract holders must, save as to emergency expenses not exceeding $50, accept a doctor from the list.
>
> Defendant is a stock corporation, operated for profit. It advertises its services and solicits the public for purchase of its contracts, paying commissions to its soliciting agents. The money collected from contract holders is paid into the general fund, and this, together with the capital and surplus, is invested. The charges for medical services are paid out of the general fund and income from investments.

The Court then stated that it adhered to the established doctrine that a corporation may not engage in the practice of such professions as law, medicine or dentistry. Next, it applied the above stated facts to the rule announced and reached the conclusion that the activities of the Pacific Health Corporation were, in effect, corporate practice of medicine and hence were unlawful.

During the course of its opinion the Court mentioned two contentions that had been made by counsel for the Pacific Health Corporation. One of these was that the physicians secured by Pacific Health Corporation were not employees of it, but were independent contractors because they were paid on a fee basis rather than a salary. The other contention was that a decision against the Pacific Health Corporation would outlaw all religious, charitable, fraternal and employee organizations now rendering medical care in this state through physicians and surgeons.

With respect to the independent contractor assertion, the Supreme Court held as follows:

> We are unable to agree that the policy of the law may be circumvented by technical distinction in the manner in which the doctors are engaged, designated or compensated by the corporation. The evils of divided loyalty and impaired confidence would seem to be equally present whether the doctor received benefits from the corporation in the form of salary or fees. And freedom of choice is destroyed and the elements of solicitation of medical business and lay control of the profession are present whenever the corporation seeks such business from the general public and turns it over to a special group of doctors.

It is thus to be noted that the California Supreme Court has squarely held that any restriction of freedom of choice of physicians and surgeons by use of the corporate mechanism violates a fundamental public policy of the state and is, therefore, unlawful.

In answering the corporation's assertions with respect to fraternal, religious, charitable and employee organizations, the Court first pointed out that such organizations were not before the court and then expressed the opinion that there is a fundamental distinction between an ordinary private profit-seeking corporation and the type of organization mentioned. In the court's opinion the fundamental difference between fraternal, religious, charitable or employee associations organized for purposes other than profit and ordinary stock corporations is that:

> The public is not solicited to purchase the medical services of a panel of doctors; and the doctors are not employed or used to make profit for stockholders. In almost every case the institution is organized as a nonprofit corporation or association. Such activities are not comparable to those of private corporations operated for profit and, since the principal evils attendant upon corporate practice of medicine spring from the conflict between the professional standards and obligations of the doctors and the profit motive of the corporation employer, it may well be concluded that the objections of policy do not apply to nonprofit institutions.

The Court concluded its opinion with a discussion of health insurance and group medicine. It stated, first, that if the rule against corporate practice of medicine is to be changed, such change must come from the legislature and not the courts. It then stated that even if some form of health insurance or group medicine is desirable, it is possible to bring adequate medical service to the general public and at the same time protect both the profession and the public from the evils of corporate practice. The Court used as an illustration of its statement the health service system recently adopted by the employees of the city and county of San Francisco, under which all physicians practicing in San Francisco are *entitled* to render professional services to city employees, subject only to compliance with such rules and regulations of the health service board as are of a reasonable nature and acceptance of uniform rates of compensation.

Three of the seven justices dissented from the opinion of the Court. The dissenting opinion was based upon the proposition that " a corporation or a layman may lawfully employ a doctor to care for its patrons or members." In support of this proposition, cases from Nebraska and Missouri were cited. The dissenting justices also were of the opinion that *Pacific Employers' Insurance Co.* vs. *Carpenter, supra,* and *Benjamin Franklin Life Assurance Co.* vs. *Mitchell, supra,* should be overruled.

It should be observed that the *legislature* has forbidden corporate practice of medicine (Business and Professional Code, Sections 2006, 2007, and 2008) and that the Nebraska and Missouri cases relied upon by the dissenting justices are contrary to express California statutes as well as California judicial decisions.

Analyzing the decisions of the District Court of Appeal and the Supreme Court, it may now be concluded that in California the law with respect to corporate practice of medicine is as follows:

1. A corporation organized for profit or having stockholders may not engage in the practice of medicine or surgery.

2. Any attempt by such a corporation to restrict freedom of choice of physicians or to solicit contracts with persons who may become patients of physicians selected by the corporation, constitutes in effect the corporate practice of medicine and surgery and is forbidden.

3. Corporate practice is unlawful even though the corporation's shareholders or other proprietors may be physicians.

4. Nonprofit corporations (organized under Civil Code, Sections 593 *et seq.*) or associations furnishing the services of physicians and surgeons to employees of a common employer or furnishing medical services as a part of a religious or fraternal or charitable endeavor are probably not violating Rule 1 above (each enterprise will have to stand or fall according to its particular circumstances); and

5. Any change in the law, with respect to corporate practice of medicine and surgery desired by any special interests, must be sought from the legislature and not the courts.

SPECIAL ARTICLES

STATE HUMANE POUND ACT

"All technicalities aside, the so-called 'State Humane Pound Act' is aimed against animal experimentation by those who have twice failed in recent years to pass similar state-wide legislation. We are confident that if the citizens of California understand the menace to health and safety that is in this bill they will overwhelmingly defeat it."

This appeal to the voters to defeat Proposition No. 2 on the November 8 ballot has just been issued by Dr. Ray Lyman Wilbur, President of Stanford University and also President of the California Society for the Promotion of Medical Research, which is conducting the campaign against the measure.

Doctor Wilbur calls attention to the fact that a recent vote of the Commonwealth Club of California, taken after a thorough investigation of the legal effects if the "Humane Pound Act" is adopted, resulted in sixty-five votes against the measure and only five for it. Nearly 160 lay, scientific and medical associations have to date gone on record against the initiative.

"Some confusion has been caused," continues Doctor Wilbur, "by the efforts of the proponents of this measure to show that it is practically harmless; but such is not the case. It will hold back the advance of medicine and the relief of human suffering.

"California can be proud of the great research work done by its major institutions. California must become a world center of research in the fields of hygiene, public health, and medicine. Any effort to handicap those who are working in our laboratories or who are manufacturing sera or vaccines for humanity or for our horses, dogs, cattle, sheep, hogs, and chickens, should be promptly defeated.

"Our present laws give full protection against cruelty or abuse that all of us dog-owners demand. The 'Humane Pound Act,' is a long step in the direction of harming medical research and, for the sake of every man, woman and child in California, it should be soundly defeated at the polls."

"MARCH OF LIFE" EXHIBIT FOR SAN FRANCISCO FAIR

Emphasizing the brighter side of medicine, the cure and prevention of disease, the University of California Medical School's exhibit at the 1939 Golden Gate International Exposition will give visual proof of the steady progress of the healing arts. In a sixteen-unit display, now being assembled and installed under the direction of Dr. Karl F. Meyer, Director of the Hooper Foundation for Medical Research, and Dr. Langley Porter, Dean of the University's Medical School, the story of the accomplishments of medical science will be told.

The first unit of the display will be titled "The March of Life" with a series of thirty-five transparencies showing the history of the individual from the prenatal period to old age, with the various bodily changes involved. The second unit will contain a key index and general descriptive panel which will describe the whole exhibit in detail. The third unit will deal with the animal kingdom, showing how animals are both the friend and foe of man. This will consist of a large painting, eleven feet wide and seven feet high, illuminated from behind, and emphasizing particularly the processes of disease transmission. The fourth unit will show the prenatal period of human life. The fifth, sixth, and seventh will deal with the diseases of children and their prevention, while the eighth will compare growth changes through childhood to adolescence. The ninth will depict the healing mysteries and near miracles of surgery, while the tenth and eleventh will feature the place of the physician in the scheme of life and some of the diseases that he has conquered.

The twelfth unit will be given over to a display on arthritis, illustrated by colored lantern slides. The thirteenth will deal with the right and the wrong way of arriving at old age. The fourteenth will show the percentage shifts in population between people of various ages. The fifteenth will be a display covering nutrition, both good and bad, while the sixteenth will demonstrate the services rendered by the University's medical center to its own students.

The unit showing the prenatal period will be featured by a display of human embryos and other material which will carry the spectator through a large segment of the embryonic history of man. In the displays devoted to child health will be shown how children may be susceptible to various protein substances, to cause various allergies, and how rickets and other diseases of young children are caused. The treatment and cure of these conditions will be closely outlined. Another unit in this group will detail the health education of children, while still another will show, through a series of relief models, the changes of development of boys and girls from eight years to sixteen years.

The place of the physician in the scheme of life will be shown by another great painting, eleven feet high by seven feet wide. This will detail how he steps from the portals of the Medical Center to stand between the people and the diseases that beset them, as one member of a great army of medical men. Another contribution of the Department of Medicine will show in striking pictorial form how incorrect posture and related causes may bring on ailments harmful to the heart and circulatory system and how these may be prevented.

Of particular interest will be the large unit showing the two methods of arriving at old age. This will be another large painting showing what happens to the person who disregards health rules and lets his minor ailments, so-called, run their course, and what happens to the person who makes an effort to keep himself fit. The contrast will be sharpened with a pictured display of what happens to a plot of land that is being subjected to the processes of erosion and neglect as compared to a plot which is carefully cultivated and cared for.

The panel dealing with the animal kingdom is being prepared by the Hooper Foundation, under the direction of Doctor Meyer. The embryo display is under the direction of Dr. William C. Deamer, assistant professor of pediatrics, and Dr. John B. Saunders, associate professor of anatomy. Dr. Francis S. Smyth, professor of pediatrics, has charge of the displays on child care in illness. The display on the health education of children is under the direction of Dr. Edna W. Bailey, associate professor of education. Surgery, which will stress particularly the function of the thyroid gland and the cause and correction of ailments arising from it, will be directed in its display by Dr. H. Glenn Bell, associate professor of surgery. The medical panels will be directed by Dr. Stacy R. Mettier, assistant professor of medicine, the arthritis display under the direction of Dr. James F. Rinehart, associate professor of pathology. Dr. Lionel S. Schmitt, associate professor of preventive medicine, and Dr. Albert E. Larsen, instructor in medicine, have charge of the display showing the two ways of arriving at old age. The nutrition display, which will include a demonstration of foods and eating practices designed to maintain the human body in health, will be under the direction of Dr. Guy S. Millberry, dean of the College of Dentistry, and Dr. Nina Simmonds, lecturer in medicine. In addition, Doctor Millberry will aid in directing the other exhibits showing the relation of dentistry to public and private health.

The ambitious effort of the medical center is occupying the attention of a number of members of the medical profession and of artists and artisans, and every effort is being made to make it a complete picture of medical, surgical and health practices, with the last named being emphasized particularly.

STATE HUMANE POUND ACT

Vote "No" on No. 2

The attention of our citizens is called to Proposition No. 2—the so-called Humane Pound Act—appearing on the November ballot. The *Record* believes this to be one of the most vicious proposals that has appeared on the ballot since 1922, when a similar proposition was defeated by almost 300,000 majority. It is similar in intent to bills which have been defeated time and again without number in the State Legislature.

The casual reader of this Humane Pound Act might be misled into believing that its sole purpose is the protection of stray dogs and cats. What it really would do would be to hamper and cripple all scientific investigation where animal experimentation is carried on in the efforts of physicians to find means for the relief and cure of human ills and for the prolongation of human life.

The great advance in medicine and surgery in the past seventy-five years has been built almost entirely upon animal experimentation. Without such experimentation we would not have had aseptic surgery nor many of the great surgical operations which today save and prolong human lives. We would not have had diphtheria antitoxin nor the preventive vaccination against diphtheria. We would not have had any of the serums or vaccines now so successful in the cure or prevention of smallpox, tetanus (lock-jaw), typhoid fever, hydrophobia. cerebrospinal meningitis, pneumonia, and other diseases. There would have been no insulin for diabetes, no cortin for Addison's disease. We would have known nothing about the value of liver and liver extracts in the treatment of pernicious anemia.

It was only by means of feeding experiments on animals that our knowledge of vitamins was gained. By means of experiments on animals new drugs are tested and proper dosages learned before they are used on human patients.

Most of the advances made in the past few decades in the treatment of tuberculosis, syphilis, and cancer, to name only a few of the many diseases, have come from scientifically controlled animal experimentations. Today the great battle is to find the cause of cancer, and to get better and earlier diagnosis of this great enemy of mankind as well as to find, if possible, a cure. The United States Government has allocated millions of dollars toward research on cancer, most of which will go to finance animal experimentation.

Do not let anyone tell you that these experiments are cruel. A very high percentage of them are feeding experiments or experiments where no greater operation is performed than the prick of a hypodermic needle. When surgical operations are necessary they are performed under anesthesia with the same care and skill as is used in operations on human beings.

Proposition No. 2 puts it squarely up to the voter to decide between stray animals and human beings; between a dog, a cat, a mouse, a rat, a guinea pig, or a human being—perhaps a baby. Protect yourself and your children. Vote "No" on No. 2.—Editorial, Colfax *Record*, October 17.

STATE HUMANE POUND LAW*

What I have to say about animal experimentation in biology and medicine would not be authoritative, since I am not, myself, a biologist or a medically trained person. But my friend and former colleague of the University of Chicago, Prof. A. J. Carlson, as humane and rigorously honest and truthful a man as any one living, has recently written on this subject in the issue of *Science* of September 16, an article which all who wish to be intelligent voters on the proposed State Humane Pound Law should read in full. Let me condense some of its main ideas for the readers of this paper.

* By Dr. Robert A. Millikan.

It is because animals are anatomically and physiologically so much like man that animal experimentation has played so great a rôle in the medical discoveries that have already done so much to abolish plagues and infectious diseases generally in both man and animals; for "free and intelligent experiments on animals during the past three hundred years have been the greatest factor in our present achievements in knowledge of the nature of life and the control of disease." Here are merely two examples out of hundreds:

EXAMPLES CITED

"One of the great discoveries in medicine of all times is the approximate causes of pernicious anemia and the control of pernicious anemia by the liver and gastric principles. I glory in the fact that this discovery was made in this country, our country, these United States. The first steps were taken by experiments on dogs in the city of San Francisco in the great University of the State of California. Then the ball passed to the Atlantic Coast, to fair Harvard. And now the whole world cheers California and Harvard, and Doctor Whipple, and Doctor Minto, and Doctor Murphy. Citizens of California, remember that cheer when you are confronted with proposals to shackle your great universities, proposals which say, in effect, that good doctors of this state cannot be trusted to treat unclaimed stray dogs humanely!

"There were more than thirty years of intensive research on animals—mainly on the dog—before we had the substance insulin in sufficient purity to warrant its trial on people sick with diabetes; and even now every new lot of insulin must be tested on animals before it is safe for the sick man, the sick woman, or the sick child. Every informed layman knows the value of insulin in diabetes in man. You need not take my word for it. Read history and form your own judgment. These facts are obvious. I sincerely believe that if every man and woman in this country knew the inspiring story of the discovery of insulin, all voices would be raised in approbation of such fruitful animal experimentation." . . .

BENEFITS TO ANIMALS

Again, "I could speak to you for hours on what experiments on animals in veterinary medicine have done for the health and happiness of the dog and the cat, the horse, the heifer, the hog, and the lowly hen. We can rid the dog of harmful parasites, including the hookworm, and we are well on the road to prevent dog distemper. As to rabies, we are still in the trenches, but making progress. But let the record speak for itself." . . .

Further, "As to the charge that it is cruel, I have a word to say as a man who has been engaged in animal experimentation for over a third of a century and should know something about it. Cruelty is the wanton or useless infliction of suffering on man or animals. I know the biological and medical research laboratories in this country and abroad, and can state as a fact that in animal experiments involving pain the same anesthetics are used as in surgical operations on man. . . . When animals under anesthesia are used in medical teaching, they are not allowed to come out of the anesthesia. Death by anesthesia is probably one of the least uncomfortable deaths.

There is inflicted on animals more pain in one hunting, trapping and fishing season than in all the centuries of animal experimentation. We use animals, by common consent, for food, for clothing, for labor, for pleasure. Now can it be wrong to use animals humanely to increase our understanding of life, our control of disease, both of which contribute to human and animal happiness? . . .

MAINLY FALSE CHARGES

"As to the tactics of the adversaries to modern biology and medicine. The group that endeavors to cripple the progress of modern biology and medicine by propaganda and restrictive legislation is made up of a small core of

peculiar people; the blindest of the blind; people who do not want to see. This small group, through a persistent propaganda of mainly false charges, mislead a much larger number of poorly informed but otherwise fine, sane, kind, and excellent citizens. The latter usually change their allegiance when they learn the truth about animal experimentation. . . .

"A vote for the so-called Humane Pound Law is a vote of censure of your universities and medical schools. It is a vote to cripple, hamper and impose an impossible financial burden on medical education and medical research in California. It is a vote of lack of confidence in the medical profession of this state. A vote for this measure says: The leaders in medical education and medical research in the State of California cannot be trusted to treat unclaimed stray dogs and cats humanely. . . .

ILLINOIS DEMONSTRATION

"This is what happened in my own city and state a few years ago, when opponents of modern medicine tried to shackle medical research and medical teaching. When the same question was up in Illinois, we invited our fellow citizens (including our adversaries) to come to our medical laboratories to see for themselves whether our work was futile and cruel. They came; legislators, aldermen, men of the mart and women of the home and club, men in the store and men in the street. They saw for themselves and then voted overwhelmingly to give unclaimed stray dogs to reputable laboratories for medical teaching and research, for humane service toward human welfare. This was done by the citizens of Chicago and the State of Illinois. Will the citizens of California do less? Will they put restraining shackles on the noblest endeavors of man?"

The Southern California Committee of the California Society for Medical Research, which is heading the opposition to the proposed State Humane Pound Act, is composed of Robert A. Millikan (chairman), Dr. Remsen du Bois Bird, the Most Rev. John J. Cantwell, Dr. Charles K. Edmunds, Dr. Robert Freeman, Rabbi Edgar F. Magnin, Louis B. Mayer, Dr. Rufus B. von KleinSmid.—*Pasadena Star-News,* October 13.

FEDERAL INVESTIGATION OF DISTRICT OF COLUMBIA MEDICAL SOCIETY CONTROVERSY

Jury Probe Ordered for Doctor Groups

Washington, October 4.—(AP)—Chief Justice Alfred A. Wheat of the Federal District Court here ordered today a special Federal Grand Jury investigation of anti-trust charges against the American Medical Association and the District of Columbia Medical Society.

Justice Wheat, granting a request of Government attorneys, called the special jury to meet on October 17.

The Justice Department, represented by United States Attorney David A. Pine, and Allen Hart, special assistant to Attorney-General Cummings, announced on July 31 it would charge the Medical Association and its local affiliate with illegally interfering with activities of Group Health Association, Inc. Group Health is a coöperative providing medical aid to low-income Government employees.

At a recent press conference Attorney-General Cummings emphasized his department did not charge the American Medical Association with monopolizing the practice of medicine, but that the Association may have conspired to restrain "trade" in violation of one section of the Sherman Anti-trust Act.

The Department charges the local medical society with threatening expulsion of any members who accept employment on the Group Health Association's staff and even of doctors who consult with physicians employed by the Association. It further charges the local society required hospitals here to exclude Group Health staff doctors.—*San Francisco Chronicle,* October 5.

* * *

United States Asks Jury to Indict Medical Association

Washington, October 17 (UP).—The Department of Justice will ask a special grand jury today to return criminal indictments against the American Medical Association and the District of Columbia Medical Society for alleged "coercive" action against a coöperative health movement.

The Government charges that medical societies violated the anti-trust statutes in opposing the Group Health Association, an organization of Government employees to furnish themselves and their families medical care.

The case is an unprecedented application of the anti-trust laws. Officials frankly admit that it is a test case which, if successful, may result in similar action in other cities.

Most of today will be devoted to selection of a jury. Actual presentation of the Government's case probably will begin tomorrow and continue two or three weeks.

The Government's case is a climax to a long fight between the Medical Association and Coöperative Health organizations.

Assistant Attorney-General Thurman Arnold has charged that doctors in the District of Columbia, through their organization, the District Medical Society, an affiliate of the American Medical Association, have hampered physicians associated with the Group Health Association.

They have been "coercive," he charged, by threatening to expel from the Society doctors employed by the coöperative and doctors who consult with its physicians.

A Justice Department investigation of the alleged practices was started several months ago. The Department said it believed such activities constituted violations of the anti-trust statutes because the medical organizations were "restraining trade."—*Los Angeles Herald-Express,* October 17.

* * *

Government Still After the Doctors' Union

The monopoly crusade against the American Medical Association or its District of Columbia unit was so loudly proclaimed that it is an embarrassing issue for the Department of Justice to drop. The Attorney-General accordingly is moving forward against the Doctors' Trust.

This is fortunate, not because the harrying of the doctors is edifying, but because court decisions on the points involved can set precedents and settle controversial questions of far wider application than in the field of calomel and quinin.

The Government accuses the Society by its code of ethics, its control of members, and outlawry of nonconformists, of being a monopoly. But doctors are not in commerce. They sell personal service. Personal service is labor. If they are a monopoly it is because they operate under union by-laws and closed-shop rules.

It is to the public interest that the courts rule upon the issues put forward. Either the Department of Justice will be told to stop such hare-and-hounds exhibitions or there will be a clarifying of some highly controversial issues which particularly affect doctors only because a part of their job is the mending of broken heads in other arguments about union matters.—*San Francisco Chronicle,* September 26.

* * *

Medical Inquiry Pressed by the United States

Grand Jury in Washington Calls Witnesses in Anti-Trust Investigation

Washington, October 18 (UP).—The Government called its first group of witnesses today before a special Grand Jury in an attempt to prove that the American Medical

Association and the District of Columbia Medical Society have violated anti-trust laws.

Behind locked doors the twenty-three-man jury will determine whether the Government's charge against the two medical organizations or any of their officers should be carried to Criminal Court for trial.

"RESTRAINT OF TRADE"

The Government alleges that organized medicine, in its attack on Group Health Association, a coöperative medical organization of Government employees, has acted "in restraint of trade" in violation of anti-trust laws.

Late yesterday the Government called as its first witness, Dr. Hugh Cabot, Mayo Clinic surgeon, who declared last July that medical practices in many sections of the country are "medieval." He repeated the statement to reporters before he entered the jury room.

His opinion, Doctor Cabot said, was based on personal investigation and many years of observation. He regards the problem of medical care for low and middle income families as one to be solved "by the community" and one which "cannot be remedied by the doctors themselves."

PATIENTS ARE CUSTOMERS

"In my opinion, the people whom doctors call patients are the same as customers and should have something to say about the price they pay for the services they receive," Doctor Cabot said.—*San Francisco News,* October 18.

* * *

Doctors to Fight

When the Department of Justice announced its intention to obtain an indictment of the American Medical Association as a monopoly it cut out a pretty tough job. The people of the country have their own opinions about doctors, and no one is more respected and esteemed than the family doctor.

The present Administration has made a bad start in singling out doctors as "monopolists" because every family doctor is a business institution all by himself, no matter whether he belongs to a lodge of Masons, Elks, or a local medical society.—*Stockton Independent,* September 29.

FARM SECURITY ADMINISTRATION: MEDICAL AID PROGRAM FOR LOW-INCOME FARMERS

The Farm Security Administration announced recently that, with the coöperation of the state medical associations and other professional groups of North and South Dakota, it has worked out plans to provide emergency medical care for eligible low-income farm families of the two states at a cost of $2 per month per family.

Dr. W. W. Alexander, Administrator, said the medical aid plans for North and South Dakota were based upon the experience of the FSA with similar plans in these and sixteen other states. Already, he said, 58,000 low-income farm families are being helped to obtain medical care at a cost they can afford through the coöperation of state medical associations in those states.

The state-wide programs in North and South Dakota, which should increase this total to more than 80,000 families, are scheduled to go into operation on November 1, Doctor Alexander said. They have been approved by Dr. R. C. Williams, Medical Director of the FSA, and the state medical, dental, pharmaceutical, nursing and hospital associations of the two states.

About 37,000 families in North Dakota and 40,000 in South Dakota, or about half the farm families of each state, will be eligible to participate, Doctor Alexander announced. He said the plan would be open to all families who are now being, or have been, aided by the Farm Security Administration.

The Administrator said the FSA would loan to each family signing up for the medical aid program $16, or the equivalent of $2 per month for the rest of this year. This money will be placed in the hands of special corporations in each state composed of federal and state officials and members of the state medical associations.

The fund will be allocated by each corporation on a prearranged basis between physicians, dentists, hospitals, pharmacists, and nurses. It also will be divided into equal sums for the eight months covered by the program.

Families signing up for the program will then be eligible for emergency medical, dental, or hospital care from any members of the professional organizations. Bills for the services will be paid by the state corporations set up under the plan, and if the funds available for a given month are not sufficient to cover the bills they will be prorated.

In each state an officer nominated by the professional organizations, but paid by the state health departments, will serve as general medical supervisor and arbitrator. One of his duties will be to check the bills submitted by the professional practitioners to prevent excessive and unnecessary charges.

The South Dakota plan will not become operative, Doctor Alexander said, until 20,000 families sign up for the service. Already 25,000 families in North Dakota are participating in a program which is being superseded by the new plan.

Doctor Alexander explained that the Farm Security Administration had embarked upon medical-aid programs in the Dakotas and sixteen other states because it had found medical attention was required in its efforts to rehabilitate low-income farm families and make them self-supporting.

"Quite aside from any humanitarian purpose," he said, "the Farm Security Administration has found, as a lending agency, that a family in good health is a better credit risk than a family in bad health. It has developed plans for medical care because it has found that good health is a necessary part of a family's rehabilitation."

Plans developed by the FSA in other states to provide medical care for its borrowers are similar but on a smaller scale than those provided in North and South Dakota, Doctor Alexander said. In all cases they have been worked out only after understandings have been reached with state and local medical associations.

In some cases, the funds in the hands of trustees are kept separate for each family. Doctor Alexander said, however, that experience with the two plans clearly indicates that for low-income families the program being applied in the Dakotas is preferable. In case of catastrophic illness it is impossible for any family in this income level to pay individually for hospitalization and special medical care without financial ruin; yet it is unfair to ask a physician to handle such cases on the nominal fees available.

The pooling of funds, he added, serves as a form of voluntary insurance against disaster for the patient and against unreasonable hardship for the doctor.

The medical aid plans, Doctor Alexander said, have encouraged a sane acceptance of more effort in the way of preventive medicine. In many areas, local physicians have served the families with little or no compensation and families have postponed requests for medical aid, while ailments grew more serious because of unpaid debts.

In general, Doctor Alexander said, physicians are pleased with the program. Most of the families aided have in the past been unable to pay anything, but are now able to pay at least a part, if not the full amount, due.

Doctor Alexander said county-wide plans are now in operation in 56 of Arkansas' 75 counties; in 13 counties in Missouri; 12 counties in Mississippi; 9 in Texas; 5 in Alabama, Georgia, and Ohio; 4 in Tennessee; 3 in Indiana and Oklahoma; and 2 in Iowa. Agreements have been reached with state medical associations in North Carolina,

Wisconsin, Utah, New Mexico, and Colorado. Plans are under way to approach local medical associations in those states.

The prolonged drought in North and South Dakota have made state-wide plans necessary. The influx of migrants from the "dust bowl" area into California has required setting up a special medical care program in that state, also.

SAN FRANCISCO MUNICIPAL HEALTH SERVICE SYSTEM

Group Health in Effect for San Francisco City Workers

Twelve Thousand Individuals Have Burdens of Expensive Care Taken From Shoulders

Lifted from the shoulders of 9,500 city employees and 2,500 of their dependents today was the specter of prolonged illness with expensive doctor and hospital costs.

The twelve thousand individuals were members of the Health Service System of San Francisco, and for the payment of small monthly sums were guaranteed the best medical and hospital attention the city affords.

As the group health insurance plan went into operation the Health Service Board was already looking ahead to the day when service could be expanded to include dental care and other services.

Virtually all illness and operations were provided for under the present plan, to which each employee contributes $2.50 a month, 25 cents of which goes to maintain the Health Service Board.

For each dependent over eighteen years of age they pay $2.25 a month, and if a family has one child under eighteen coming in under the plan, the charge is $1.50. For larger families the charge is $1 per child.

SELECTION OF ONE THOUSAND PHYSICIANS

The members of the plan can select their physicians and surgeons from a panel of one thousand doctors, which is being expanded rapidly, and can choose any major hospital in San Francisco, with the exception of Stanford University Hospital.

Jesse B. Cameron, secretary, reported scores of reservations have been made for treatment of illnesses of long standing and that these requests have been turned over to Dr. Walter B. Coffey, Medical Director.

FUNDS PROTECTED

"To assure an equitable trial period, Doctor Coffey has been authorized to postpone hospitalization of any case for six months," Mr. Cameron said. "This does not mean we will not accept cases immediately, but is a safeguard against a possible but unlikely depletion of our surplus funds."

Income of the system averages $30,000 a month now and is expected to be materially increased in the near future as more dependents of employees come under the plan. They have until November 15 to join without taking a physical examination first.—*San Francisco News,* October 1.

* * *

San Francisco City Employees Are a Robust Lot

The first few days of operation of their new health service system, which has attracted nation-wide attention, have shown San Francisco municipal employees to be a healthy lot, according to Dr. W. B. Coffey, Medical Director of the system.

Contrary to expectation, no rush of applications for operations or hospital service developed when the system started on October 1. Hospitalization has been under the estimates of Doctor Coffey for normal operations.

Two offices are operated by the system, which furnishes medical and hospital services to some 9,500 employees and 2,000 dependents for $2.50 per month for adults, $1 a month for children.

THE BUSINESS OFFICE

The business office, managed by Jesse B. Cameron, System Secretary, is at the City Hall. It receives employee contributions through collections by the controller, pays the bills, handles applications. Medical headquarters are maintained at 909 Hyde Street, with Doctor Coffey in charge.

At Doctor Coffey's offices each morning's mail brings reports from physicians who have served members. About one thousand doctors are on the panel, having agreed to a fee schedule, a "unit" system for computing pay for services and other regulations. A member of the System has free choice of doctor or hospital. All but one of the city's major hospitals are on the list.

NO RED TAPE

For the employee-member there is no red tape, though out of his sight there is a thorough system of reports and records that permits the Medical Director to see what is going on.

From the doctors' and hospital reports daily reports to Doctor Coffey are made up. Yesterday's showed fifty-five new cases of illness, six old cases terminated, 175 cases still under treatment.

One member had been hospitalized, two discharged from hospitals, leaving seven in hospital beds. Hospital days during the month to date were thirty-two. There had been 150 office visits to doctors, seventeen house visits by doctors during the five days, seven minor operations, five major ones.

Doctor Coffey, in estimating service costs in advance, had figured on one thousand hospital days per month for the employee group. A rush for treatment of chronic ailments was deemed possible. The actual figures are below the normal expectation.

GOING SMOOTHLY

"Everything has gone smoothly thus far," said Doctor Coffey. "There is no reason why that should not continue. We are scrupulous in avoiding any recommendations of doctors. They maintain their right to attract patients through good service. The doctor-patient relation is maintained. The business office, run by laymen, does not interfere with the medical end of the System.

"I am confident physicians, hospitals, and employees will like the arrangement more as it goes along. It puts medical and hospital services within employees' means by spreading the cost. There is no restriction on the patient's freedom of choice or on any ethical doctor's right to serve members of the group who want his services."

Doctor Coffey said inquiries about the local plan had been received from many places and from as far away as Washington.—*San Francisco Chronicle,* October 6.

SOUTHERN CALIFORNIA MEDICAL CARE PLAN

Hospital and Doctor's Service for Low Wage Earners Foreseen

Inauguration of a nonprofit hospital-medical service in the Southland for the special benefit of low-bracket wage earners was foreseen yesterday for the near future by Ritz E. Heerman, President of Associated Hospital Service of Southern California, and also superintendent of California Hospital, following his return from Dallas, Texas, where he attended the national convention of the American Hospital Association.

"Nonprofit hospital-medical service for wage earners formed one of the major themes of the convention, which

was attended by representatives of the American Medical Association, the Social Security Board of Washington, D. C., and virtually every major hospital and hospital association in the United States," said Heerman.

PRESSURE STRONG

"Speaking for the Government, Arthur J. Altmeyer, Chairman of the Social Security Board, and Louis S. Reed, also of the Board, declared that the public pressure which is being exerted upon the Government for a more widely beneficial and advanced type of hospital service is of a character that no longer can be ignored.

"These Government spokesmen were most fair in their attitude toward hospitals, declaring that many institutions have gone far toward solving existing problems by voluntarily introducing group hospitalization.

"Both speakers assured convention delegates that the Government entertains no plans for engaging in a program that would be in competition with voluntary institutions, particularly those which have a nonprofit plan in operation or under serious consideration."

PARTIAL SOLUTION

Heerman added that the Government spokesmen expressed the opinion, however, that the nonprofit service plan in operation in various parts of the country only partially solves present problems, and that the entire program will receive new impetus when a coördinated group medical service plan is placed in operation.

"A plan of this type is being considered by medical groups throughout the United States, especially in Southern California, following a meeting of the House of Delegates of the American Medical Association on September 16, when it fully approved the nonprofit hospital group plans now functioning under the joint direction of hospital and medical men."

FULL SERVICE PLANNED

Heerman said that plans are now under consideration for institution of a combined prepayment hospital-medical service throughout the Southland.

"In some of the rural communities we will encounter cases where unfortunate groups will be financially unable to subscribe to the plan. In such instances the Federal Government has indicated a method probably will be advanced whereby these groups will be able to have the same nonprofit medical-hospital benefits that are enjoyed by other classes of society."

Heerman said that several local medical societies are surveying the situation and that leaders in the group hospital plan have expressed their willingness to offer the medical fraternity their coöperation as soon as a workable program has been formulated.—*Los Angeles Times,* October 8.

NEW YORK MEDICAL SERVICE PLAN

Doctors Propose Four-Cent-a-Day Plan

Every Medical Care, Including Surgery and Specialization, Would Be Specified

A sweeping plan for providing medical care of every type, surgery and specialization included, at a cost to subscribers of four cents a day, is being developed for application to sixteen counties of New York next year, it was learned yesterday.

Assemblyman Foster Piper of Buffalo has completed a tentative draft of enabling legislation to be introduced at Albany in January, in what was termed a strong attempt to clear the way for relief alike of doctors and their patients. Meanwhile, the Kings County Medical Society has established a nucleus for the "Associated Medical Service of New York—a mutual nonprofit coöperative association to facilitate employment of medical service."

Dr. Frederic E. Elliott, secretary-treasurer, said the object was "insurance against unusual and costly" doctors' bills. Ailments involving less than $10 expense to the patient will not be covered by the plan, but any other disease or operation would be handled through an annual subscription of $14.60.

RESEMBLES HOSPITAL PLAN

The plan resembles that of the Associated Hospital Service of New York, which was authorized by special legislation three years ago. The latter operates on a three-cent-a-day basis and offers hospitalization for stated periods. If the project covering physicians and surgeons also goes into effect, complete protection against a serious emergency may be obtained for $24.60 yearly.

Mr. Piper's enabling clause, under the State Insurance Law, is expected to be in part as follows: "A membership corporation may be organized to function as a consumers' coöperative stock corporation, or a medical expense indemnity, or a hospital service for persons who become subscribers. Medical expense indemnity shall consist of reimbursement for medical care provided through duly licensed physicians and furnishing the necessary appliances, drugs, medicines, and supplies."

No one service would be allowed to combine medical and hospital care and all are to be strictly nonprofit making. Fraternal benefit societies and coöperative life and accident insurance companies are to be excluded from provisions of the measure.

NEW APPROACH PLANNED

The approach to the problem will differ from that of the Coöperative Health Association of New York, a member of the Association of Medical Coöperatives, which stopped enlisting subscribers recently after a warning from Attorney-General John J. Bennett, Jr., that its activity probably was illegal. According to State law no third agency may come between a physician and his patient.

Theoretically, in consumers' coöperatives the physicians are under contract to the corporation, whereas in medical expense indemnity there is a personal obligation to the patient. The indemnity idea depends on the participation of virtually all doctors. The consumers' coöperation stock corporation mentioned by Mr. Piper would be authorized to sell medicinal products but no professional services.

Dr. Charles H. Goodrich, president last year of the New York State Medical Society, is a member of the Medical Advisory Board of the proposed service. Serving with him are: Dr. Thomas M. Brennan, Dr. John E. Jennings and Dr. Harvey B. Matthews, all past Kings County Society presidents; Dr. Philip I. Nash, Kings president-elect; Dr. Alec N. Thomson, Kings medical director; and Dr. Alfred E. Shipley, former Deputy Commissioner of Hospitals. The application for certificate of incorporation has been drawn and signed by Dr. John B. D'Albora, Dr. John L. Bauer, Dr. Irving Gray, Dr. John J. Masterson, and Dr. Elliott.

The September issue of the *Kings County Medical Society Bulletin* will contain an editorial, describing the proposal and ending:

"There must be some concrete evidence that this enterprise will receive general acceptance and coöperative support of the medical profession. To this end, within the next few days, each physician in Kings County will receive a communication from the Association with an enclosed reply post card. . . . A vast amount of detail must be accomplished before the Association can actually enroll physician members."—*New York Times,* September 17.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XI, No. 11, November, 1913

From Some Editorial Notes:

Of Utmost Importance!—For your own benefit and protection, please remember these facts:

The large majority of suits for damages for alleged malpractice which we are called upon to defend, are based upon an alleged improper treatment of a fracture.

In every case of fracture that comes to you for professional treatment, see that an x-ray plate is made and that you keep it in your possession; do not give it to the patient.

Whenever possible, have some other physician see the patient with you, make a careful examination of the fracture, and be able to testify that it was properly set and bandaged.

Use the fluoroscope if you like, but, in addition, be sure to have a plate made; it will remain a permanent record of the condition at the time it was taken.

In two instances where suits were brought, the member had thoughtlessly given the x-ray plates to the patient and, of course, the patient would not produce them; they were "lost."

In 1896, Doctor Jones gave a demonstration of the then very new x-ray or roentgen rays before the San Francisco County Medical Society. In the course of his remarks he expressed the opinion that the time would come when any physician who treated a fracture case without making an x-ray examination of it would render himself liable to a suit of damages. Many of those present ridiculed this opinion and one went so far as to deplore the discovery of the x-rays, saying that they would make surgeons less careful and less skilful. Carelessness in this regard—not taking and keeping an x-ray plate—has cost the Society $4,000 in the defense of suits which came about more or less as predicted.

To put it graphically, this carelessness has cost each individual member almost two dollars, for the money for defense comes out of our pockets; the more the work costs the Society, the higher is the required assessment.

Have an x-ray plate made in every case of fracture.

Keep the plate—do not give to the patient.

Have a consultant if possible.

These things are for your own protection, and a little care and thought may keep you from a great deal of trouble and loss of time and annoyance in the future. . . .

* * *

Where Does the "Physician" Come In?—It is a well-recognized fact that the profession of medicine is a most unselfish one. Medical men are continually striving along lines of prophylaxis, with results which have already greatly impaired the income of the profession as a whole. And now, assisted by various hospital organizations and laboratories, the public may soon be taught to get along almost entirely without the services of so-called diagnosticians and therapeutists. In these days of self-starting automobiles, pianolas, victrolas, of blood transfusions and tissue transplantations, self-administered anesthesias and self-performed operations, it is rather gratifying to stop and consider the advances made by the laboratory worker along the lines of diagnosis, thus enabling the patient to decide accurately for himself as to what ails him. . . .

* * *

Uniform Membership.—When medical societies were few in number and small in membership and had no direct rela-

(Continued in Front Advertising Section, Page 15)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

News Items

"The State Board of Medical Examiners announces that 172 of 174 applicants had passed the examination for physicians and surgeons recently held in San Francisco. Only two fell short of the high grade of 75 per cent required and these two would doubtless have met any less stringent standard. On the same day, eleven out of fourteen met the requirements for the much more limited art of chiropody. There has never been an examination for admission to the Bar of California, since the present examination system was established, on which anything approaching this proportion of success was reached. It would be a rare examination which even half of the applicants passed. And this is not because the standards for lawyers are higher than those for physicians, or the examinations are more difficult. The exact contrary is the case. If the preliminary training of aspirants to the Bar were uniformly as high as that in medicine, most of the candidates would pass, too. In fact, nearly all of those who have this training do pass. The difference is that there are now no medical schools but Class A schools; they admit none but highly selected university graduates, and they permit only those to remain in medical school who show the necessary ability and diligence. Naturally, the survivors of this process pass the State examinations also, with few or no exceptions. If the law is ever to be in fact what it has always been in name, a 'learned' profession, the same standards of preparation will have to be required of aspirants to it. The question still remains whether the law should be a learned profession. Curiously enough, there are two opinions in this. There is only one as to medicine." (Editorial from San Francisco *Chronicle,* August 29, 1938.

"The California State Supreme Court yesterday frowned again on the Pacific Health Corporation, Inc.'s contention it performed a legal service because its physicians were in independent practice. The court denied, without comment, the health organization's petition for rehearing of a decision which previously condemned its group medical insurance program as a violation of the Medical Practice Act." (Associated Press dispatch, dated San Francisco, September 30, printed in the Los Angeles *Herald-Express,* September 30, 1938.)

"The State Supreme Court, which recently held the activities of the Pacific Health Corporation were in violation of the Medical Practice Act, yesterday granted a stay of judgment to the health insurance firm pending an appeal of the case to the United States Supreme Court." (San Francisco *Examiner,* October 5, 1938.)

"One of the weeklies recently carried an article, in the form of an interview, by a New York physician who says that doctors as a class do not know what they are doing. . . . Well, we read the article and hoped that the doctor—he is Dr. Edward Spencer Cowles—would enlighten us a little on the subject. But he failed to do so. . . . Doctor Cowles attacks the doctors without indicating that he knows much more than other members of his profession, if as much. . . . We do not think that this New York specialist has manifested in his article a good spirit. . . . When a doctor begins to abuse the members of his profession on the score of their

(Continued in Front Advertising Section, Page 23)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

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Check every *cost . . . and realize Baxter economy*

Do you know exactly how much your intravenous solutions are costing you? Go to your hospital pharmacist. Ask how many liters of solutions were discarded because of age and deterioration . . .

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Figure out your cost for repairs and maintenance of stills, sterilizers, filters. Add your supervision and labor costs. When you have all that your task is only just begun, for you must *guess* at a dozen or more *hidden* costs that sap your budget.

Check *every* cost . . . then compare it with the open, known, accountable cost of Baxter's Dextrose and Saline solutions in Vacoliters. When you buy Baxter's solutions you *know* exactly what ever cent is purchasing. There is no indirect cost. There is no waste . . . every liter of solutions is *usable*. Labor and supervision is no longer *your* cost. You pay nothing for insurance, for still maintenance or heating. And yet you use solutions as fine, as pure, as sterile as we can possibly produce . . . packed in Vacoliters that are convenient for you to use.

In a word . . . you buy a complete service . . . adapted to your own institution, to answer your own specific needs. And it need not cost you a cent more than you pay today. Check *every* cost . . . realize Baxter economy.



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Superintendent

Subject: "State Humane Pound Act."—Copy of a six-page folder sent to members of the California Medical Association on October 19, 1938. Copy follows:

An Important Letter—To You From the California Medical Association

Contents—This Circular

1. A Letter to You (Printed, Yet Personal); in re: "State Humane Pound Act," and Your Responsibilities on That Issue.
2. A Letter to Members of the Woman's Auxiliary. (On Coöperation Procedures with Physicians.)
3. Copies of the Four Types of Communications on Post Cards to Be Sent to Patients. (Fifty prepaid Post Cards will be sent to every member of the California Medical Association. Also a letter form.)

To the Members of the California Medical Association
California Medical Association
Four Fifty Sutter Street
San Francisco, California
October 19, 1938

Council's Committee on "State Humane Pound Act"
Philip K. Gilman, Chairman, San Francisco; T. Henshaw Kelly, San Francisco; John W. Crossan, Los Angeles; George H. Kress, Secretary, San Francisco

Communications should be addressed to the Secretary, Room 2004, Four Fifty Sutter Building, San Francisco

In re: "State Humane Pound Act": Initiative No. 2—A Bad Law.

To the Members of the California Medical Association:

Dear Doctor:

Do not underestimate the importance of this printed letter. In the short time available before Election Day, Tuesday, November 8, it is the only way in which we can bring this message to the 6,000 members of the California Medical Association.

The Humane Dog-Pound Law (Initiative No. 2) is nothing else than an antivivisection law, fully as obnoxious as those that have been recurrently defeated in the California Legislature.

The proposed law, cleverly misnamed, and camouflaged with much phraseology, will probably mislead many citizens of our State into voting in its favor, unless its significance is previously explained to them.

It must go down to defeat, and if you do your part, in common with the other members of our State Association, it will be defeated and decisively so.

The issue is one of major importance, and every physician owes it to himself, to scientific and organized medicine, and to his patients, to help.

To defeat No. 2, it will be necessary for you to send at least fifty (50) post cards to patients and friends, asking them to Vote No on Number 2. (The post cards will be mailed to you in a manila clasp envelope. Instruct your office assistant to be on the lookout for them.) The post cards may contain different text, but they will all tell the same story—Kill No. 2.

Please take a few minutes to read this circular, which gives additional information on how the Woman's Auxiliary and the Public Health League will coöperate.

* * *

If you wish more than fifty post cards, telephone your county society secretary and if his supply of extra cards is exhausted he will immediately write or wire (night letter) the Central Office of the California Medical Association, Room 2004, Four Fifty Sutter Building, San Francisco, for additional sets.

Other literature will be sent to your county society secretary by the California Society for the Promotion of Medical Research, 369 Pine Street, San Francisco (Telephone SUtter 8118).

Members of the Woman's Auxiliary and key-men of the Public Health League may also call or telephone to you, in furtherance of our plans. We know you will give them kindly courtesy and coöperation.

* * *

Keep in mind—Time Is Fleeting Rapidly—and that the post cards you and your fellow members sign, must be placed in the mails on Tuesday afternoon, November 1 (to make delivery certain several days before election day, Tuesday, November 8).

Every California Medical Association member is being

(Continued on Page 39)

BENZEDRINE SULFATE TABLETS

'Benzedrine Sulfate Tablets' have now been accepted by the Council on Pharmacy and Chemistry of the American Medical Association for use in the treatment of narcolepsy and post-encephalitic parkinsonism, and to facilitate roentgenologic examination of the gastro-intestinal tract. The Council also recognizes the usefulness of 'Benzedrine Sulfate' in institutionalized patients for the treatment of depressive psychopathic states.

During the past three years, more than seventy original articles dealing with the uses of 'Benzedrine Sulfate Tablets' (amphetamine sulfate, S.K.F.) have appeared in medical and scientific publications.

The following would seem to be of especial interest at this time.

NARCOLEPSY

Ulrich, H.: Narcolepsy and Its Treatment with Benzedrine Sulfate—New Eng. J. Med., 217:696, 1937.

GASTRO-INTESTINAL EFFECTS

Myerson, A. and Ritvo, M.: Benzedrine Sulfate and Its Value in Spasm of the Gastro-Intestinal Tract—J.A.M.A., 107:24, 1936.

POST-ENCEPHALITIC PARKINSONISM

Davis, P. L. and Stewart, W. B.: The Use of Benzedrine Sulfate in Post-Encephalitic Parkinsonism—J.A.M.A., 110:1890, 1938.

DEPRESSION

Wilbur, D. L.; MacLean, A. R. and Allen, E. V.: Clinical Observations on the Effect of Benzedrine Sulphate—J.A.M.A., 109:549, 1937.

Woolley, L. F.: The Clinical Effects of Benzedrine Sulphate in Mental Patients with Retarded Activity—Psych. Quart., 12:66, 1938.

MISCELLANEOUS

Reifenstein, E. C., Jr. and Davidoff, E.: The Treatment of Alcoholic Psychoses with Benzedrine Sulfate—J.A.M.A., 110:1811, 1938.

Hill, J.: Benzedrine in Seasickness—Brit. Med. Jour., ii:1109, 1937.

Lesses, M. F. and Myerson, A.: Human Autonomic Pharmacology. XVI. Benzedrine Sulfate as an Aid in the Treatment of Obesity—New Eng. J. Med., 218:119, 1938.

Present Status of Benzedrine Sulfate — Report of the Council on Pharmacy and Chemistry — J.A.M.A., 109:2064, 1937.

Each 'Benzedrine Sulfate Tablet' contains amphetamine sulfate, 10 mg. (approximately 1/6 gr.)

The Council on Pharmacy and Chemistry of the A.M.A. has adopted amphetamine as the descriptive name for α-methylphenethylamine, the substance formerly known as benzyl methyl carbinamine. 'Benzedrine' is S.K.F.'s trademark for their brand of amphetamine.

SMITH, KLINE & FRENCH LABORATORIES, PHILADELPHIA, PA.

EST. SKF 1841

The swaddled infant pictured at right is one of the famous works in terra cotta exquisitely modeled by the fifteenth century Italian sculptor, Andrea della Robbia. In that day infants were bandaged from birth to preserve the symmetry of their bodies, but still the gibbous spine and distorted limbs of severe rickets often made their appearance.



A bambino from the Foundling Hospital, Florence, Italy,—A. della Robbia

Glisson, writing in 1671, described an ingenious use of swaddling bands — "first crossing the Brest and coming under the Armpits, then about the Head and under the Chin and then receiving the hands by two handles, so that it is a pleasure to see the Child hanging pendulous in the Air . . . This kind of Excercise . . . helpeth to restore the crooked Bones. . . ."

STRAPPED FOR RICKETS

SWADDLING was practised down through the centuries, from Biblical times to Glisson's day, in the vain hope that it would prevent the deformities of rickets. Even in sunny Italy swaddling was a prevailing custom, recommended by that early pediatrician, Soranus of Ephesus, who discoursed on "Why the Majority of Roman Children are Distorted."

"This is observed to happen more in the neighborhood of Rome than in other places," he wrote. "If no one oversees the infant's movements, his limbs do in the generality of cases become twisted. . . . Hence, when he first begins to sit he must be propped by swathings of bandages. . . ." Hundreds of years later swaddling was still prevalent in Italy, as attested by the sculptures of the della Robbias and their contemporaries. For infants who were strong Glisson suggested placing "Leaden Shooes" on their feet and suspending them with swaddling bands in mid-air.

How amazed the ancients would have been to know that bones can be helped to grow straight simply by internal administration of a few drops of Oleum Percomorphum. What to them would have been a miracle has become a commonplace of science. Because it can be administered in drop dosage, Oleum Percomorphum is especially suitable for young and premature infants, who are most susceptible to rickets. Its vitamins A and D derived from natural sources, this product has 100 times the potency of cod liver oil.* Important also to your patients, Oleum Percomorphum is an economical antiricketic.

Oleum Percomorphum offers not less than 60,000 U.S.P. vitamin A units and 8,500 U.S.P. vitamin D units per gram. Supplied in 10 and 50 c.c. bottles, also in boxes of 25 and 100 ten-drop soluble gelatin capsules containing not less than 13,300 vitamin A units and 1,850 vitamin D units (equal to more than 5 teaspoonfuls of cod liver oil*).

*U.S.P. Minimum Standard

MEAD JOHNSON & COMPANY, Evansville, Indiana, U. S. A.

Please enclose professional card when requesting samples of Mead Johnson products to cooperate in preventing their reaching unauthorized persons

Reducing congestion of nasal mucous membranes with

SOLUTION PROPADRINE HYDROCHLORIDE

1 Prompt, prolonged and adequate constriction.

2 Isotonic—to minimize local irritation.

3 Less toxic than ephedrine —especially evident following prolonged and frequent application.





PROPADRINE HYDROCHLORIDE (phenyl-propanol-amine hydrochloride) products are available at most druggists, moderately priced on prescriptions, in the following convenient dosage forms:

SOLUTION: 1% (isotonic)—1-ounce and pint bottles; 3%—1-ounce and pint bottles.

NASAL JELLY: in ½-ounce tubes containing 0.66% Propadrine Hydrochloride.

CAPSULES: ⅜ grain — bottles of 25, 100 and 500; ¾ grain—bottles of 25 and 100. (Also used for the symptomatic control of hay fever and asthma.)

"For the Conservation of Life"

Pharmaceuticals SHARP & DOHME *Mulford Biologicals*

PHILADELPHIA BALTIMORE

RECENT ADVANCES IN THE SCIENCE OF NUTRITION

III. Some Attainments in the Fields of Vitamin A Research

● During the twenty-five years since its discovery, vitamin A has been the subject of much intensive research, first by the biochemist and physiologist, and later by the clinician and organic chemist. It may be of interest to describe briefly several of the achievements made in these various fields of research on vitamin A.

It has been found that vitamin A is unique among the vitamins thus far discovered. It is apparently the only vitamin produced solely by animal metabolism from precursors —certain carotenoid pigments—which are themselves solely the products of plant metabolism. The structure of the vitamin has been established and checked by syntheses of closely allied forms and probably of the pure vitamin itself (1).

Physiological and clinical researches have provided explanations of the mode of absorption of the vitamin and the mechanisms of transport and storage in the body (2). The specific pathological effects of varying degrees of vitamin A deficiency in humans have been extensively studied. Many of the older ideas concerning specific effects of vitamin A on man have been confirmed; some of the older beliefs have been dispelled (2).

Recent years have also brought improvements in assay methods for vitamin A (3). Common American foods have been surveyed and their vitamin A values tabulated (4). Last but not least, authoritative estimates are at hand as to the quantitative requirements of children and adults for vitamin A (5). Such, in brief, are only a few of the important additions which have been made to our knowledge of this essential dietary factor. Today, students of nutrition favor the practice of "protective nutrition" in which the individual is maintained upon a diet calculated to supply all known dietary essentials—vitamin A included—in optimal amounts insofar as these amounts may be known. In specific instances, such dietaries must be supplemented by vitamin-rich materials. However, the prime consideration is to provide a properly formulated basic diet. In this connection, commercially canned foods are worthy of mention.

Modern canning procedures are practically without effect upon the vitamin A values of raw foods (3). The commercially canned varieties of foods prized for their vitamin A contents, therefore, lend themselves admirably to the formulation of protective diets. Not only because of their contributions of vitamin A, but also because of their ready availability, convenience and economy, these commercially canned foods provide one of the most valuable means whereby the American public may secure an optimal supply of the important dietary essential, vitamin A.

AMERICAN CAN COMPANY
230 Park Avenue, New York, N. Y.

1. 1938. J. A. M. A. 110, 1748.
2. 1938. Ibid. 111, 144.
1938. Ibid. 110, 2072.
3. 1938. Ibid. 111, 245.
4. 1937. U. S. D. A. Bur. of Home Econ., Misc. Pub. 275
5. 1934-1935. Amer. Pub. Health Assn. Year Book 25, 69.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the forty-second in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.



The Seal of Acceptance denotes that the statements in this advertisement are acceptable to the Council on Foods of the American Medical Association.

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Accuracy
Quality
Reliability

The Owl Drug Co

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For Hernia . . .

When you refer a patient to M. J. Benjamin you are assured that a support will be carefully made according to sound principles backed by two generations of experience.

Shaping each pad to conform to the hernial region permits the covering of a broader surface and the use of softer material.

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(Established 1893)

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323 West 6th St. Los Angeles
Phone MAdison 1593

"Two Generations of Appliance Makers"

(Continued from Page 34)

counted on to do his full part. With thanks for your co-operation, we are

Cordially and fraternally,

THE COUNCIL'S COMMITTEE ON "STATE HUMANE POUND ACT"
By George H. Kress, *Secretary.*

* * *

P. S.—In addition to the fifty post cards which will be sent to every member of the California Medical Association, we will also send to the secretary of each county medical society some letters, printed on plain paper, in which the story concerning the "State Humane Pound Act"—No. 2, is told in more detail.

Every member of the California Medical Association is urged to secure his quota of these letters from his county society secretary, and to send them to patients and friends (in addition to the fifty post cards to be sent out). Consult your Society Secretary in regard to this. G. H. K.

* * *

To the Woman's Auxiliary
A Letter to Its Members

San Francisco, October 19, 1938.

To the Members of the Woman's Auxiliary to the California Medical Association:

Dear Friend:

This letter is intended to call the attention of every Woman's Auxiliary member to the ways and means that will permit her to render efficient aid in the efforts to bring about the defeat of the "State Humane Pound Act" (Initiative No. 2 on the ballot)—a Bad Law.

The Special Committee appointed by the Council of the California Medical Association asks Auxiliary members to coöperate along lines somewhat as follows (these are "suggestions"):

1. Your officers will consult at once with the president and the secretary of your respective county medical society and obtain the names of the special local committee of physicians who will have charge of the educational work against Initiative No. 2 in your district.

2. Your local county auxiliary will create a corps of members, each of whom will agree to call on or telephone certain doctors, to be certain that the lists of patients and friends, to whom the prepaid post cards will be sent, are under preparation by the physician or his secretary.

3. Fifty (50) post cards will be mailed to every member of a county medical society. (Upon request, post cards will be sent also to members of the Woman's Auxiliary.) The post cards will be sent to each physician from the San Francisco Central Office of the California Medical Association.

* * *

Now, where and how do the members of the Woman's Auxiliary appear in this campaign? As follows:

(*a*) Each Woman's Auxiliary member will call on or telephone every physician whose name is on her list and ask him or his secretary to prepare his list of fifty names of patients and friends, with addresses. (This message must be gotten across at once, in order to get the work under way, and to prevent delay in delivery at a later time when the mails will be clogged with political literature.)

(*b*) In two days after the first visit or telephone conversation, she must check by visit or telephone, and ask whether this list of at least fifty names has been prepared by the physician, and whether his post cards have been addressed.

(*c*) All post cards will be picked up by the Woman's Auxiliary member (they can be placed in a sealed package) to be taken by her to the Central Headquarters established by your county medical society. (The secretary of the county medical society will designate the place for your district.)

The post cards will be held there until the official time for mailing (Tuesday, November 1) is at hand. (Or the physician, if he wishes, can drop his set of post cards in the mail on Tuesday, November 1. In that case, the Auxiliary member should telephone the physician on Wednesday, November 2, to learn whether he has mailed his cards. If not she should telephone each day thereafter, until that assurance has been given. If the physician does not intend to use his post cards, they should be picked up by the Auxiliary member and turned over to the secretary of the county medical society, who will arrange for their use elsewhere.)

(*d*) On Tuesday afternoon, November 1, all the post cards so gathered will be placed in the mails. (Delay after Tuesday, November 1, will be dangerous, because of the terrific

(Continued on Page 41)

RICHARDSON MINERAL SPRINGS

(Near Chico, Butte County, California)

Fire proof hotel, comfortable cottages at rates from $30 per week up including medical advice, meals, steam and mineral baths.

RHEUMATISM, ARTHRITIS, KIDNEY AND BLADDER DISORDERS

Hydrotherapy Combined With a Warm Dry Climate

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Address: STEPHEN SMITH, M. D., F. A. C. P.; CHARLES W. THOMPSON, M. D., F. A. C. P.
MEDICAL DIRECTORS, PASADENA, CALIFORNIA

(Continued from Page 39)

mass of political mail that will be placed in the mails after that day. Every one of these post cards must be made to do its work. With patients and friends, each post card has a potential value of five or more No Votes on Number 2!!!)

* * *

The above, in brief, is the plan for all communities where a county auxiliary is willing to function, in full coöperation with the county medical society of which it is an auxiliary, and with the key-men representing the Public Health League of California. The names of these key-men will be sent to the secretaries of the respective county medical societies by either the Northern or Southern offices of the California Public Health League, the office addresses of that organization being as follows:

San Francisco: 244 Kearny Street (Telephone Sutter 8470).

Los Angeles: Room 563, 1151 South Broadway (Telephone Prospect 5711).

(In counties where no auxiliary exists, members of the California Medical Association will proceed individually along the lines indicated above.)

* * *

The urgency of this work demands prompt coöperation and hard work. (The October issue of CALIFORNIA AND WESTERN MEDICINE, in its opening articles by Professor Ivy, tells the story of humane animal experimentation and what it has accomplished for both human beings and the lower animals. The articles by Chester Rowell portray the fallacies of the antivivisectionists. Other articles give additional information.)

We are counting on your aid. The public health welfare of California's citizens is at stake. Your individual help with that of other Auxiliary members, is needed; and, if given, will aid greatly in making possible the defeat of the Humane Pound Law—Initiative No. 2.

With good wishes, we are

CALIFORNIA MEDICAL ASSOCIATION COUNCIL'S
COMMITTEE ON INITIATIVE No. 2.
By George H. Kress, *Secretary.*

P. S.—Kindly read the postscript to the preceding letter. It refers to "letters." It is possible that the Woman's Auxiliary can be of special assistance to the county medical society secretaries, by helping in the distribution of these letters. The same general procedure would apply. Be certain that these letters also get into the mails by Tuesday, November 1, if possible. G. H. K.

Copies of the Four Types of Communications
Printed on Post Cards

* * *

(Copy of Post Card 1)
Proposition No. 2—A Bad Law

Dear Friend:

Protect both human and animal lives by voting No on Proposition No. 2 ("State Humane Pound Act") on November 8.

This is a bad law. It is a bad law because it is not a measure for regulating public pounds but is in reality a scheme to hamper scientific research.

I do not need to point out to you the relief to humanity, with protection of health and prolongation of life, that re-

(Continued on Page 43)

For Acidity and Allied Conditions, we suggest

ADAMS SPRINGS MINERAL WATER



● MANY physicians recommend the water in conjunction with the treatment of stomach, liver and kidney trouble.

ADAMS MINERAL SPRINGS is one of the seven known iron and maganese bi-carbonate springs in the world, and the only one in Western America.

It is not a cure-all, but it overcomes acid excesses in the body, and is a very mild but wonderfully effective eliminator. The bowels function without spasm, the kidney output is greatly increased, and there is *marked* drainage of bile from the gall bladder and liver.

There is also some constitutional upset for a few days, particularly in gall bladder cases. But this is soon over and your patient begins to show improvement and is now in condition to profit by any medication you may prescribe. If the case is an operative one, you have improved your patient and made of him a better risk.

We will be pleased to cooperate in any way whatever, and samples of water are yours for the asking.

A Natural Mineral Water

SHOWING MAIN CONSTITUENTS

By PROF. SYDNEY A. TIBBETTS, *Berkeley*

MANGANESE	1.3 parts per million
IRON	12.5 parts per million
CALCIUM	173.3 parts per million
MAGNESIA	339.3 parts per million
SODIUM	365.0 parts per million
SILICA	93.0 parts per million
CHLORINE	38.3 parts per million
SULPHATE	16.1 parts per million
NITRATE	0 parts per million
PHOSPHATE	.7 parts per million
CARBONATE	1551.4 parts per million
TOTAL	2591.4 parts per million

For further information write W. R. PRATHER, D. D. S.
ADAMS SPRINGS, LAKE COUNTY, CALIFORNIA

Steam heated hotel, open all year around.

3000 feet up in the Lake County Pines.

(Since 1870)



PLEASE ASK US

YOU MAY have questions . . . on the physiological effects of smoking . . . which we can answer. Please feel free to ask us.

Our research files contain exhaustive data from authoritative sources — from which we will be glad to quote whatever may bear upon your question.

If you have not already read the studies on the relative effects of cigarette smoke, may we suggest that you use the request blank below? And also that you try Philip Morris Cigarettes yourself.

IF YOU WOULD LIKE COPIES of reprints listed below, check those you wish, tear off this part of the page, and mail to PHILIP MORRIS & CO., LTD., INC., 119 Fifth Avenue, New York... Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245 ☐ N. Y. State Jour. Med., 1935, 35-No. 11, 590 ☐ Laryngoscope, 1935, XLV, 149-154 ☐ Laryngoscope 1937, XLVII, 58-60 ☐

NAME_____ M. D.

ADDRESS_____

CITY_____ STATE_____

CAL.

SYPHILIS

COMPLETE SYPHILIS DIAGNOSTIC SERVICE

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Approved by San Francisco County Medical Society, California State Board of Health, and American Medical Association.

24-HOUR SERVICE Phone MArket 2100

(Continued from Page 41)

searches in medicine have been able to bring about through animal tests and investigations.

As a physician, I urge you to please vote No on No. 2.

Very truly,

.....M. D.

(As a reminder, take this card to the polls.)

* * *

(Copy of Post Card 2)

Vote No on No. 2 ("State Humane Pound Act")

Dear Friend:

If No. 2 becomes law, medical progress will be stopped short.

Medical science, through experimentation, has conquered many diseases—typhoid, tuberculosis, diphtheria, blood poisoning, infantile paralysis, scurvy, diabetes, pernicious anemia, and many others. It is now able to fight hopefully against cancer, pneumonia, and arthritis.

The passage of this Act would abolish many measures that are now used to protect the health and lives of men, women, children, and animals in the State of California.

Vote No on No. 2! It is a Threat to Human Life!

Sincerely yours,

.....M. D.

(As a reminder, take this card to the polls.)

* * *

(Copy of Post Card 3)

Concerning "State Humane Pound Act" (Initiative No. 2)

Dear Friend:

Many issues will be submitted for your consideration on election day, November 8. Among them is the "State Humane Pound Act" (Initiative No. 2). It is probably the greatest menace to the health of the people of this State and of the Nation. It prevents all persons interested in the conservation of the health of the people and of their animals from successfully carrying on their unselfish work.

If this law is passed, many methods of treatment would have to be studied only on human beings, since the lower forms of animal life would no longer be available for experimental use under the humane conditions which now prevail throughout the world. The voters must decide this question.

(Continued on Page 45)

When *FATIGUE*

***Blocks* the Patient's Progress**

COCOMALT

Runs Interference!



Abnormally low blood sugar may explain the quick fatigue of your ambulatory or convalescent patient

Raising the blood sugar level with an easily assimilable carbohydrate facilitates management by blocking fatigue

COCOMALT is rich in sucrose, dextrose, maltose and lactose—easily assimilable carbohydrates—a food of choice to restore energy to the delicate child, de-vitalized patient, pregnant and lactating mother.

One ounce of COCOMALT mixed with eight ounces of milk furnishes 273 calories. It contains proteins of high biological value and is a rich source of calcium, phosphorus, iron and vitamin D.

COCOMALT holds an important place in the dietary management of all patients in which maintenance of energy demands small, frequent feedings of a liquid protective food which is rich in carbohydrates.

Cocomalt

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HOBOKEN NEW JERSEY

R. B. DAVIS COMPANY
Hoboken, New Jersey

Please send me a clinical package of COCOMALT.

_____*M.D.*

*Street*_____

*City*_____ *State*_____

DEPT. 16-M

Probably 70% of all cases of
lobar pneumonia can be treated with—

ANTIPNEUMOCOCCIC SERA

TYPES 1, 2, 4, 5, 7 AND 8

WITH A RESULTANT saving of over 40,000 lives annually in the United States.

IN RECENT YEARS an average of 100,000* deaths per year have been attributed to lobar pneumonia alone.

Calculating from the known relative frequencies of the individual pneumococcus types, and from the mortality rate when no serum is given, 225,000 cases and 67,000 deaths are caused by Types 1, 2, 4, 5, 7, or 8, pneumococci.

19 out of every 31 deaths can be avoided* by adequate specific serum therapy, administered during the first four days of illness; in other words, more than 40,000 of these deaths are preventable.

Potent, refined and concentrated "Antipneumococcic Sera *Lederle*" are available in the following packages:

Bivalent Types 1 and 2, Bivalent Types 4 and 8, Bivalent Types 5 and 7, Monovalent Type 1 and Monovalent Type 2. These are horse sera and are all "Council Accepted".

A survey of the literature indicates that the types enumerated here are responsible for more than 70% of all cases of pneumococcic infection, no matter how manifested (lobar or bronchial pneumonia, empyema, etc.).



*Horsfall, F. L., Canadian Pub. Health J.; October, 1937.

Lederle

LEDERLE LABORATORIES, INC.
30 ROCKEFELLER PLAZA NEW YORK
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153 Kearny Street
GArfield 0460
SAN FRANCISCO

OAKLAND ESTABLISHED 1916 LONG BEACH

(Continued from Page 43)

I respectfully ask that you Vote No on No. 2 and induce others to do so.

Very sincerely yours,

.....M. D.

Vote No on No. 2—It is mislabeled "Humane." It is Anti-vivisection. It is anti-educational.

(Take this card to the polls as a reminder.)

(Copy of Post Card 4)

"State Humane Pound Act" (Initiative No. 2)—A Bad Law!

Dear Friend:

On November 8 you will vote on Initiative No. 2, the proposed "State Humane Pound Act."

This is a bad law. It is a bad law because it is not a measure for regulating pounds, but one to hamper scientific research that would do away with human diseases.

Insulin, digitalis, diphtheria antitoxin, and hundreds of other saving agents used in medicine depend upon animal tests.

Don't endanger both human and animal lives by voting for that law.

How many stray or unwanted dogs are your loved ones worth?

Please Vote No on Initiative No. 2.

.....M. D.

(As a reminder, take this post card to the polls.)

Copy of the Letter Circular

(These letters will be supplied upon application to your County Medical Society Secretary)

Dear Friend:

A particularly dangerous initiative will appear on the November 8 ballot as Proposition No. 2, a mistitled "State Humane Pound Act."

This measure, innocent though it appears to be, is in reality antivivisection legislation, and if adopted by the voters will seriously cripple medical research in California.

You can believe me when I tell you that by far the greater part of the knowledge we use in the diagnosis, prevention or cure of disease has been gained directly or indirectly by the humane use of animals in medical research. Many diseases, now considered incurable, will eventually be conquered only if animal experimentation is permitted to continue unhampered.

Tens of thousands of stray dogs are put to death annually in the public pounds of California, without benefit to anyone. Yet the antivivisectionists would have the medical profession raise more dogs for experimental purposes.

How many stray dogs is your baby worth?

Even the welfare of the dogs themselves is concerned in the defeat of this measure, as the American Veterinary Medical Association has said in unmistakable terms.

It is not my policy to give advice on election matters. But it would be a betrayal of your implied confidence in me did I not advise you to vote No on Proposition No. 2.

Your future welfare and that of your family and friends depends upon defeat of the "Humane Pound Act."

Sincerely yours,

Note.—Attached to the front of each bundle of fifty post-cards was a blue card of same size, containing the following information:

California Medical Association
Room 2004, Four Fifty Sutter
San Francisco, California

October 18, 1938.

Dear Doctor:

Enclosed find fifty (50) paid post cards, sent to you as per the announcement in the folder letter concerning the "State Humane Pound Act" (Initiative No. 2), already received by you.

These are the post cards to be addressed to fifty (50) of your patients or friends, and to be signed with your name.

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(Continued on Page 47)

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(Continued from Page 45)

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California Medical Association Council's Committee on "State Humane Pound Act."

By GEORGE H. KRESS, *Secretary.*

Infestation and Dirt Bring Widespread Seizures by Pure Food Authorities.—The Federal Food and Drug Administration reports in its current monthly statement the seizure of large quantities of flours, meals, candies, and other foods and food materials, because of the presence of live or dead insects, their eggs or excreta. . . .

Insect infestation was also responsible for the seizure of these items: 650 pounds of spaghetti and macaroni, thirty-eight boxes of salted peanuts, 14,000 pounds of raw peanuts, 1,747 boxes of candies, and 321 crates of blueberries and huckleberries. . . .

Drug items seized in August included five bags of digitalis leaves showing an excessive moisture content, and not packed in waterproof and airtight containers as required by the United States Pharmacopoeia; thirty-eight pounds of substandard sandalwood oil; twelve bottles of "Lactium" represented as a good source of bacillus acidophilus but found on test to be notably low in living organisms, and bearing false and fraudulent therapeutic claims in its labeling; 188 packages of cotton-tipped applicators not sterile as represented, and also carrying unwarranted therapeutic claims; one gross of defective mechanical prophylactics.

These eleven patent medicines labeled with unsubstantiable medicinal claims also were seized: Cholax, Elmi Electro Mineralized Water, George's Compound, Kane's Sen Gen, Life (Miracle) Mineral Water, Methosol, Norwesco Rub, Pancreatone, Rx333 for Women, Soap Lake Salts, and Trainer's Famous Oil.

Work during August under the Federal Food, Drug, and Cosmetic Act of 1938 turned up additional lots of dangerous eyelash and eyebrow dyes. Seizures were effected of twenty-six packages of "Dark Eyes," thirty-three packages of "Hollywood Lash and Brow Dye," 321 packages of "Lash Lure," nine boxes of "Loris Permanent Lash and Brow Colure," and 311 packages of "Magic-Di-Stik." Further lots of "Causalin," a dangerous aminopyrin-containing preparation, totaling forty-three packages, were also located and seized.



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Vitamin A Deficiency and Dark Adaptation.—Bertha L. Isaacs, Frederic T. Jung, and A. C. Ivy, Chicago (*Journal of the American Medical Association*, August 27, 1938), present the results of their studies pertaining to the relation of vitamin A to dark adaptation as measured by the biophotometer in 143 medical students. Their original purpose was to determine whether a correlation exists between the dietary intake of vitamin A, biophotometer readings and clinical symptoms. No correlation could be detected between dietary vitamin A and biophotometer readings. Neither could a correlation be noted in the subjects between vitamin A intake and clinical signs and symptoms of vitamin A deficiency. The authors believe that nothing is gained by translating dial readings of the biophotometer into millifoot candles, because errors are introduced and the effects of certain fallacies are exaggerated thereby, and that the criteria generally chosen for the recognition of vitamin A deficiency by means of the biophotometer are not the most reliable criteria. Far more study is essential before the biophotometer or any other single similar instrument can be used for the detection of vitamin A deficiency in the human being.

Osteomas of Paranasal Sinuses and the Mastoid Process: Report of Cases.—Bert E. Hempstead, Rochester, Minn. (*Journal of the American Medical Association*, October 1, 1938), points out that osteomas that arise in the paranasal sinuses are not common. They are not diagnosed clinically or even suspected of being present until either evidence of intracranial complications becomes manifest or external deformities appear. Most osteomas can be removed through the fronto-ethmoidal incision. If osteomas do not involve the dura or cribriform plate, removing them by the method of Cushing is illogical. Pyocele or mucocele of the sinuses can be handled best through the fronto-ethmoidal incision. Osteomas associated with intracranial complications are cared for best through the transfrontal approach. If osteomas are associated with intracranial complications and with definite infection of the sinuses, operation might be done in two stages with advantage.

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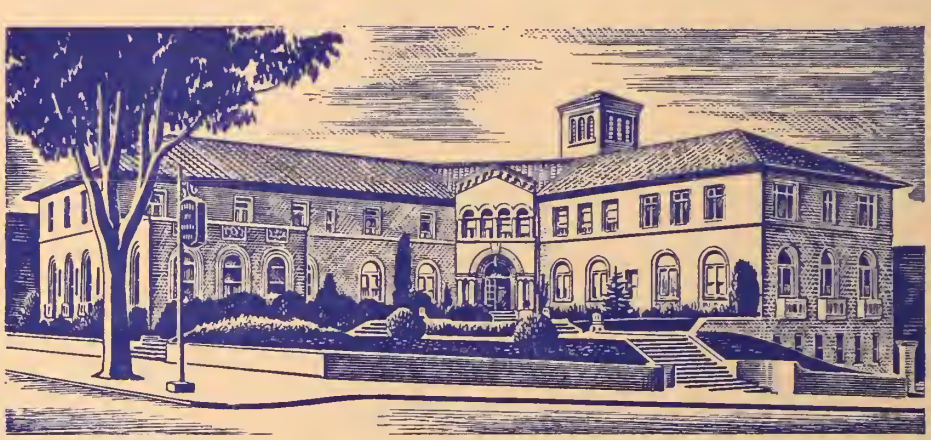
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[1] *Journal AMA Vol. 111:703 (Aug. 20, 1938)*

[2] *Journal AMA Vol. 111:156 (July 9, 1938)*

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Communications for the Public Relations Department should be addressed to the Director, George H. Kress, M. D., Room 2004, 450 Sutter Street, San Francisco.

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New York's five boroughs yielded about 9,000 tests for syphilis among applicants for marriage licenses. Of these, 104 or 1 per cent revealed infections, ten were doubtful. . . . The State of New Jersey made some 800 tests of which one per cent were positive. . . . Possibly this represents applicants who did not know they had ever been infected; as many believe that those who did know would be examined and treated before applying. In both states applications fell below the usual number for comparable periods. June showed a considerable increase over the same month last year in both states.

This is about what was expected by sponsors of the laws. It shows:

Education Needed.—Misunderstanding of the laws caused some confusion on the part of applicants, physicians, and registrars. This condition is correcting itself, and involves a health education program now being carried on by health officers and voluntary agencies.

Desirable Delay.—Many persons, aware of their infections, are delaying marriage until advised by their doctors that they can proceed.

Evasion in Some Cases.—Less conscientious persons, aware of or suspecting infection, obtained license to marry in states where the law is not effective.

Dr. Walter Clarke has summarized the purposes of the laws as follows:

1. To prevent the birth of congenitally syphilitic children.
2. To postpone marriage of infected persons while the disease is in communicable stage.
3. To reduce the toll of human life and misery which syphilis exacts all over America each year.
4. To reduce the public expense of maintaining institutions for the care of syphilis victims.
5. To promote marital happiness, encourage healthy family life.
6. To stimulate voluntary treatment of infected persons who may be considering marriage.
7. To furnish public education regarding the nature of syphilis and methods of spread.

Evidence that the public is beginning to appreciate and understand the law is shown in the greatly increased number of requests for blood tests during the second month of the law's operation. In New York State 10,862 such requests were made in August by persons requesting marriage licenses, as gainst 4,206 during July.

An example of coöperation by a state not having such legislation was recently seen in Vermont where, at the request of the State Health Commissioner, the Attorney-General ruled that town clerks were subject to fine for issuing marriage licenses which would be illegal in other states.

Anti-Rachitic Preparation.—Squibb "Delsterol" in Oil—a new anti-rachitic preparation was announced November 1, 1938.

"Delsterol" in Oil, as packaged and sold by E. R. Squibb & Sons, is a highly potent, physiologically standardized solution of activated *animal* pro-vitamin D in Oil.

"Delsterol" is indicated wherever it is desired to administer Vitamin D for prophylaxis or therapy, as to premature infants, in the prevention and cure of rickets, for expectant and nursing mothers, and in disorders of calcium-phosphorus metabolism where there is a deficiency of Vitaman D. The daily prophylactic dose for the average infant is five drops (approximately 0.1 cubic centimeter), which supply 850 units of Vitamin D. For premature infants the daily dose is fifteen drops; during pregnancy and lactation and in treatment of rickets, the daily dose is twenty drops or more, as may be indicated.

Squibb "Delsterol" in Oil is supplied in five cubic centimeter bottles with a dropper-stopper.

ROSTER OF COUNTY MEDICAL SOCIETIES, CALIFORNIA MEDICAL ASSOCIATION

(County society secretaries are requested to promptly notify "California and Western Medicine" when changes are indicated in their roster information.)

Alameda County Medical Association
2404 Broadway, Oakland

President, Clarence A. DePuy, 230 Grand Avenue, Oakland.
Secretary, Gertrude Moore, 2404 Broadway, Oakland.
Meeting, *Third Monday, 8:15 p. m., Hunter Hall, Oakland.*

Butte County Medical Society

President, Raymond Kilduff, 322½ Meyers Street, Oroville.
Secretary, J. O. Chiapella, 131 Broadway, Chico.
Meeting, *Second Thursday.*

Contra Costa County Medical Society

President, Selby H. Marks, Grabstein Bldg., Pittsburg.
Secretary, Thomas J. Dozier, 202 G Street, Antioch.
Meeting, *Second Tuesday, 8 p. m.*

Fresno County Medical Society

President, Henry A. Randel, Box 2308, Fresno.
Secretary, Lester R. Nielson, 1006 Mattei Bldg., Fresno.
Meeting, *First Tuesday, University-Sequoia Club, Fresno.*

Humboldt County Medical Society

President, Francis M. Stump, Crescent City.
Secretary, Lawrence A. Wing, Fifth and F Streets, Eureka.
Meeting, *First Thursday.*

Imperial County Medical Society

President, Henry B. Graeser, 115 E. Fifth Street, Holtville.
Secretary, William A. Clarke, Holtville.
Meeting, *Third Tuesday, 7 p. m., Barbara Worth Hotel, El Centro.*

Kern County Medical Society

President, Harry W. Lange, Hopkins Bldg., Bakersfield.
Secretary, C. S. Compton, 428 C Street, Bakersfield.
Meeting, *Third Thursday, 8:30 p. m.*

Kings County Medical Society

President, P. K. Edmunds, Corcoran.
Secretary, William A. Johnstone, Hanford.
Meeting, *Second Monday, 8 p.m., Legion Hall, Hanford.*

Lassen-Plumas-Modoc County Medical Society

President, C. I. Burnett, Susanville.
Secretary, Fred J. Davis, Jr., Westwood.
Meeting, *On Call.*

Los Angeles County Medical Association
1925 Wilshire Boulevard, Los Angeles

President, Ralph B. Eusden, M. D., 412 Professional Bldg., 117 East 8th St., Long Beach.
Secretary, George D. Maner, 1925 Wilshire Boulevard, Los Angeles.
Meetings, *First and Third Thursdays, 1925 Wilshire Boulevard, Los Angeles.*

Marin County Medical Society

President, W. Scott Polland, Albert Building, San Rafael.
Secretary, Carl W. Clark, 510 B Street, San Rafael.
Meeting, *Fourth Thursday, 6:30 p. m., Marin Golf and Country Club.*

Mendocino-Lake County Medical Society

President, Charles A. Craig, Lakeport.
Secretary, Robert B. Smalley, Willits.
Meeting, *On Call.*

Merced County Medical Society

President, E. M. Soderstrom, Merced.
Secretary, Fred O. Lien, Shaffer Bulding, Merced.
Meeting, *Third Thursday, Hotel Tioga, Merced.*

Monterey County Medical Society

President, Curtis B. Gorham, 215 Franklin Street, Monterey.
Secretary, Harold R. Lusignan, 215 Franklin Street, Monterey.
Meeting, *First Thursday.*

Napa County Medical Society

President, Walter Rapaport, Imola.
Secretary, M. M. Booth, Bruck Building, St. Helena.
Meeting, *First Wednesday.*

Orange County Medical Society

President, G. Wendell Olson, 211 No. Pomona St., Fullerton.
Secretary, Glenn Curtis, 323 So. Pomona Street, Brea.
Meeting, *First Tuesday, 8 p. m., Chapel of the Orange County Hospital, Orange.*

Placer County Medical Society

President, C. Ettrick Lewis, 59 Lincoln Ave., Auburn.
Secretary, Robert A. Peers, Colfax.
Meeting, *At Call of President.*

Riverside County Medical Society

President, D. D. Roos, Corona.
Secretary, Thomas A. Card, 3616 Main Street, Riverside.
Meeting, *Second Monday, 8 p. m., Library, Riverside Community Hospital.*

Sacramento Society for Medical Improvement

President, Dave Dozier, California State Life Building, Sacramento.
Secretary, Glenn E. Millar, 321 Physicians Building, Sacramento.
Meeting, *Third Tuesday, 8:30 p. m., Auditorium, Sacramento.*

San Benito County Medical Society

President, J. M. O'Donnell, Hollister.
Secretary, L. E. Smith, Hollister.
Meeting, *At Call of President.*

San Bernardino County Medical Society

President, Delbert B. Williams, 401 North Eighth Street, Colton.
Secretary, A. E. Varden, Medico-Dental Building, San Bernardino.
Meeting, *First Tuesday, 8 p. m., San Bernardino County Charity Hospital.*

San Diego County Medical Society

Fourteenth Floor, Medico-Dental Building, 233 A Street, San Diego
President, Bryant R. Simpson, 1205 Medico-Dental Building, San Diego.
Secretary, W. H. Newman, Medico-Dental Building, San Diego.
Meeting, *Second Tuesday, El Cortez Hotel.*

San Francisco County Medical Society

2180 Washington Street, San Francisco
President, William C. Voorsanger, 490 Post St., San Francisco.
Secretary, Stanley H. Mentzer, 2180 Washington Street, San Francisco.
Meetings, *Every Tuesday, 8:15 p. m., 2180 Washington Street, San Francisco.*

San Joaquin County Medical Society

President, A. C. Boehmer, Box 306, Lodi.
Secretary, George H. Rohrbacher, Medico-Dental Building, Stockton.
Meeting, *First Thursday, 8:15 p. m., Medico-Dental Club Rooms, Stockton.*

San Luis Obispo County Medical Society

President, Frederick R. Mugler, 1170 Marsh Street, San Luis Obispo.
Secretary, E. M. Bingham, County Health Department, San Luis Obispo.
Meeting, *Third Saturday, 6:30 p. m., Mulholland's Grill, San Luis Obispo.*

(Roster lists continued on advertising page 6)

San Mateo County Medical Society

President, Hartzell H. Ray, 23 Second Avenue, San Mateo.
Secretary, J. Garwood Bridgman, 205 Third Avenue, San Mateo.
Meeting, *Fourth Wednesday, Benjamin Franklin Hotel, San Mateo.*

Santa Barbara County Medical Society

President, E. J. Lamb, 1515 State Street, Santa Barbara.
Secretary, J. Jerome Rupp, 101 Mesa Lane, Santa Barbara.
Meeting, *Second Monday, Cottage Hospital.*

Santa Clara County Medical Society

President, E. O. G. Schmitt, 608 Medico Dental Bldg., San Jose.
Secretary, Leslie B. Magoon, Medico-Dental Building, San Jose.
Meeting, *Third Wednesday, 8 p. m., Medico-Dental Building, San Jose.*

Santa Cruz County Medical Society

President, Dean S. Woodard, Stoesser Bldg., Watsonville.
Secretary, Samuel B. Randall, 84 Walnut Avenue, Santa Cruz.
Meeting, *First Monday, 7:30 p. m., Club Rio del Mar, Aptos.*

Shasta County Medical Society

President, Mathew D. Pratt, Fall River Mills.
Secretary, Morton J. Murphy, Shasta County Hospital, Redding.
Meeting, *Second Monday.*

Siskiyou County Medical Society

President, J. B. McGuire, Mt. Shasta.
Secretary, Victor W. Hart, 113 No. Oregon Street, Yreka.
Meeting, *Second Sunday.*

Solano County Medical Society

President, Ream S. Leachman, 727 Sonoma St., Vallejo.
Secretary, John W. Green, Box 539, Vallejo.
Meeting, *Second Tuesday, 8 p. m., Casa de Vallejo Hotel, Vallejo.*

Sonoma County Medical Society

President, Alfred A. Thurlow, 505 B St., Santa Rosa.
Secretary, C. M. Carlson, 534 B Street, Santa Rosa.
Meeting, *Second Thursday.*

Stanislaus County Medical Society

President, Joseph L. Azevedo, Jr., 1024 "J" Street, Modesto.
Secretary, Hoyt R. Gant, 401 Beaty Building, Modesto.
Meeting, *Second Friday.*

Tehama County Medical Society

President, Donald E. Thompson, Red Bluff.
Secretary, F. J. Bailey, Red Bluff.
Meeting, *At Call of President.*

Tulare County Medical Society

President, E. R. Zumwalt, Tulare.
Secretary, Karl F. Weiss, Security First National Bank Building, Visalia.
Meeting, *Sunday Evening once a month.*

Ventura County Medical Society

President, Grundy C. Coffey, Bank of America Building, Ventura.
Secretary, A. A. Morrison, 625 Main Street, Santa Paula.
Meeting, *Second Tuesday, Ventura County Country Club.*

Yolo-Colusa-Glenn County Medical Society

President, Charles S. Roller, Woodland Clinic, Woodland.
Secretary, W. J. Blevins, Jr., Woodland.
Meeting, *First Tuesday.*

Yuba-Sutter County Medical Society

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Any city, whether it be registered in the regular contest or in the special award group, is eligible for either or both the syphilis and tuberculosis prize. Special award cities are those that have obtained first awards in the city contest for two or more years and are barred from competing in the regular contest. It is believed that some cities may have particularly effective programs in the control of these diseases.

In order to compete, it is necessary that the city be enrolled in the regular health conservation contest. Entry blanks for the special contest may be obtained from either the American Public Health Association or the Chamber of Commerce of the United States.

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Sacramento—State Office Building, Tenth and L streets. CApital 2800.
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California Northern District Medical Society

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Board of Medical Examiners of the State of California

San Francisco, Room 214, 515 Van Ness Avenue.
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Secretary, C. B. Pinkham, Room 214, 515 Van Ness Avenue, San Francisco.

Southern California Medical Association

President, William H. Barrow, 1400 Medico-Dental Building, San Diego.
Secretary, John B. Doyle, 501 Wilshire Medical Building, 1930 Wilshire Boulevard, Los Angeles.

The Public Health League of California

Executive Secretary. Ben H. Read. San Francisco office, 244 Kearny Street, Phone SUtter 8470, Los Angeles office, Room 563, 1151 South Broadway, Phone PRospect 5711.

Better Health Foundation

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Chairman, Executive Committee, Walter B. Coffey, 65 Market Street, San Francisco.
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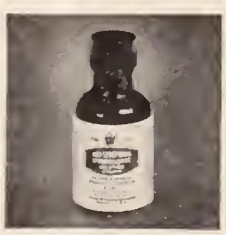
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Recent Disease Incidence. — Influenza, according to expectations, made its seasonal rise during the four-week period ending October 8, 1938. The 2,653 cases reported are about 35 per cent above the number for the corresponding period last year, according to the prevalence reports issued today by the United States Public Health Service (Public Health Reports, October 28, 1938.)

The South Atlantic and South Central areas appeared to be primarily responsible for the excess incidence, the number of cases in the former region being the highest reported there in recent years.

Smallpox, as compared with last year, indicates a decided drop, with the current incidence only about 70 per cent of that of 1937.

Although more than 3,000 cases of measles are reported for the current period, this is still below last year's record for the same time.

The incidence of poliomyelitis was the lowest recorded for this period in the decade for which these data are available. As the summer rise of this disease usually reaches its peak in September, it is now apparently safe to say that 1938 will be free from an epidemic of this disease.

Meningococcus meningitis shows the lowest incidence reports for the last ten years, with 113 cases reported.

Typhoid fever, with 1,737 cases, was less than 80 per cent of the number reported for the corresponding period last year, and the lowest for this period in recent years. Diphtheria showed a rise of about 20 per cent above the same weeks for last year, and 50 per cent above the 1936 figure. It is low, however, compared with the average incidence for the years 1933–1937.

The number of cases of scarlet fever rose from approximately 3,300 during the four weeks ending September 10, to 6,621 for the four weeks indicated by this report. The increase, however, is considered about normal for this season of the year.

According to Dr. William F. Gafafer, Senior Statistician of the United States Public Health Service, the favorable frequency rate of sickness among male industrial employees for the first quarter of this year continued through the second. A comparison of the rates for the two quarters of 1937–1938, reveals only tuberculosis of the respiratory system and diseases of the stomach, except cancer, with higher rates in 1938. The remaining causes and cause groups showed rates of like or smaller magnitude.

All through the first six months of 1938, a favorable health record was indicated among industrial employees, according to reports from twenty-six industrial sick benefit organizations, covering an average of 168,233 male employees. A frequency of nonindustrial injuries was approximately the same for the first six months of 1938 and the corresponding months of the two preceding periods under comparison in 1937.—United States Public Health Service.

There is this difference between the two temporal blessings—health and money; money is the most envied, but the least enjoyed; health is the most enjoyed, but the least envied; and this superiority of the latter is still more obvious when we reflect that the poorest man would not part with health for money, but that the richest would gladly part with all his money for health.—Colton.

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The Institutions here listed have announcements in this issue of CALIFORNIA AND WESTERN MEDICINE. For Index, see advertising page 8.

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Eye Injuries in Industry.—A four-point program for the prevention of eye injuries would include:

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2. Provision of approved protective devices for the worker and the machine in all hazardous occupations—devices conforming with national and state head and eye safety codes.

3. Securing continuous and conscientious use of these protective devices by workers through adequate supervision, through educational effort, and through mandatory rules strictly enforced.

4. Thoroughgoing compliance with state labor laws on the part of the employer, and thoroughgoing enforcement of these laws on the part of administrators.

Hunting.—Each year nearly seven million persons obtain licenses to hunt with firearms. Licensed to kill wild animals, the inexperienced, unskilled or careless hunter unfortunately may become the killer of men. The frequent deaths and injuries by accidental shooting among hunters indicate that many either know or care little about the proper handling of a gun.

About one thousand persons are killed annually in such hunting accidents. Government statistics for the entire country reveal that nearly three thousand persons are fatally wounded each year in firearm accidents generally. The statistics do not separately show what percentage of these occur in hunting, but the records of several individual states indicate that about one-third of the total—or one thousand—fatal shooting accidents are incurred by hunters.

Hundreds more are killed annually by firearms while preparing for the hunt, cleaning guns, at target practice, etc.

In the hands of children, hunters' guns carelessly left around the home have far too often figured in tragedies.

Fatalities in the field fall mainly into three classes: deaths from wounds accidentally self-inflicted; deaths due to accidental shooting by a companion; and deaths from accidental shooting by hunters in another party.

Not until hunters become more careful in the handling of guns and realize the dangers involved can a decline in accidental hunting deaths be expected. When will that be?

Some states have recently made efforts to promote safety among their hunters. Laws have been passed giving state conservation departments authority to revoke licenses for long periods or permanently when carelessness is shown. In certain cases a charge of manslaughter has been mandatory. These are moves in the right direction and it is to be hoped that they will be extended.—*Statistical Bulletin.*

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Prophylaxis Against Pneumonia.—Prophylaxis against pneumonia appeared as a possibility today on the strength of recent tests of a new vaccine.

The agent has been developed after many years of intensive laboratory research by Dr. Lloyd D. Felton, Senior Surgeon, United States Public Health Service, and others, working under grants from the Influenza Commission of the Metropolitan Life Insurance Company, and the Pneumonia Funds of Harvard and Johns Hopkins Universities.

The vaccine used is sugar-like in nature. It is a chemical portion of the pneumonia germ and contains all the immunizing qualities of this microbe. It immunizes men and mice. The fact that the entire germ is not necessary to produce active immunity, and also that the immunizing fraction is practically free from the reactions common to almost all vaccines, led to a study of its effect on human beings.

The most baffling factor among the unknown in man's fight against disease is the nature of his resistance to infection.

Why, for example, does one man come down with pneumonia while his 449 neighbors, who breathe the same air day in and day out and grasp the same door knobs, resist the disease? Almost everyone has the germs in his throat; but somehow only one, annually, out of each 450 persons in the United States, apparently lacks the lethal weapons in his blood stream necessary to stave off their invasion, and contracts pneumonia.

Early studies of immunity disclosed that germs provoke the production within our system of antibodies—specific weapons against specific microbes. But, many individuals who have no demonstrable antibodies against a particular germ nevertheless resist its invasion!

To investigate further the nature of this natural resistance and attempt to increase it, Doctor Felton and others present the seventh and eighth of a series of studies on immunization substances in pneumococci in "Public Health Reports" for October 21, 1938. The first of these gives the results of the new vaccine and its effect in the production of immunity to pneumonia; the second, of a field test to determine its preventive value.

"A single injection containing two milligrams of this antigen," said Doctor Felton, "stimulates as much antibody as multiple injections of the usual pneumococcus vaccine. This was true in the majority of the individuals tested. There was, however, a high degree of individual variation which, in turn, suggested a great variation in susceptibility to pneumonia."

The material used is soluble, stable, can be readily standardized and sterilized. In addition, it is stable as a dry powder, so that it is possible to have a supply on hand in case of emergencies, provided it is definitely proved to be an effective preventive for the pneumococcus infection. It is easier to handle, and may prove to give a resistance similar to natural immunity.

Recent tests were conducted in the Civilian Conservation Corps camps of New England and the West Coast during the winter of 1936–1937. Altogether over 70,000 young men were under observation, of whom about 30,000 volunteers were inoculated with the pneumonia antigen. The remainder provided, for comparison, a control group representing the general uninoculated population.

In the New England camps, pneumonia was almost one and three-quarter times as great among the uninoculated as among the inoculated. In the West Coast camps the contrast was still greater, the frequency among the uninoculated being nine times that among the inoculated. These findings essentially confirmed impressions gained from similar preliminary tests conducted in the New England camps.

"The results are promising," according to Doctor Felton, "but there is need for careful investigation regarding the extent and duration of immunity conferred by the new antigen before its general use as a prophylactic agent can be positively recommended."—United States Public Health Service.

It is much pleasanter to keep well than to get well; and with the help of scientists and doctors who are concentrating nowadays on fighting an offensive battle, it is becoming much easier to do than formerly.—*Hygeia.*

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Diseases of the Ear, Nose, and Throat. By Francis L. Lederer, B.Sc., M.D., F.A.C.S., Professor and Head of the Department of Laryngology, Rhinology, and Otology, University of Illinois College of Medicine, Chicago; Chief of the Otolaryngological Service, Research and Educational Hospital. Cloth. Pp. 835, illustrated with nearly 500 half-tone and line engravings, mostly original, and sixteen full-page color plates. Philadelphia: F. A. Davis Company, 1938.

Pediatric Symptomatology and Differential Diagnosis. By Sanford Blum, A.B., M.S., M.D., Head of Department of Pediatrics and Director of the Research Laboratory, San Francisco Polyclinic and Postgraduate School. Cloth. Pp. 500, with 29 illustrations, including one color plate. Philadelphia: F. A. Davis Company, 1938.

Allergic Diseases—Their Diagnosis and Treatment. By Ray M. Balyeat, M.A., M.D., F.A.C.P., Associate Professor of Medicine and Lecturer on Diseases Due to Allergy, University of Oklahoma Medical School; Chief of the Allergy Clinic, University Hospital; Consulting Physician to St. Anthony's Hospital and to the State University Hospital; President of the Association for the Study of Allergy 1930-1931; Director, Balyeat Hay Fever and Asthma Clinic, assisted by Ralph Bowen, B.A., M.D., F.A.A.P., Chief of Pediatric Section, Balyeat Hay Fever and Asthma Clinic, Oklahoma City, Oklahoma. Cloth. Pp. 547, illustrated with 145 engravings, including eight in colors. Fifth edition, revised and enlarged. Philadelphia: F. A. Davis Company, 1938.

Jacob Henle: On Miasmata and Contagia. Translated by George Rosen, M. D. Paper. Pp. 77. Price, $1. Baltimore: The Johns Hopkins Press, 1938.

Your Chest Should Be Flat. The Deep Chest Makes Better Soil for Tuberculosis. By S. A. Weisman, M. D., F.A.C.P., Assistant Professor of Medicine, University of Minnesota; Member of Consulting Staff in Tuberculosis, Glen Lake Sanatorium, Oak Terrace, Minnesota; Member of Staff, St. Andrew's and St. Mary's Hospital, Minneapolis, Minnesota. Cloth. Pp. 145, 17 tables and 74 illustrations in 49 figures. Price, $2. Philadelphia: J. B. Lippincott Company, 1938.

How to Conquer Constipation. A Series of Answers to Questions Which Have Occurred with Frequency in the Practice of a Specialist in Intestinal Ailments. By J. F. Montague, M. D., Editor-in-Chief of Health Digest; Medical Director, New York Intestinal Sanitarium; American Association for the Advancement of Science; American Society for the Control of Cancer; Late of University and Bellevue Hospital Medical College. Cloth. Pp. 244. Price, $1.50. Philadelphia: J. B. Lippincott Company, 1938.

Interns Handbook. A Guide, Especially in Emergencies, for the Intern and the Physician in General Practice. By Members of the Faculty of the College of Medicine, Syracuse University. Under the Direction of M. S. Dooley, A. B., M. D., Chairman of Publication Committee. Second Edition, Revised and Reset. Cloth. Pp. 523. Price, $3. Philadelphia: J. B. Lippincott Company, 1938.

Synopsis of Clinical Laboratory Methods. By W. E. Bray, B. A., M. D., Professor of Clinical Pathology, University of Virginia; Director of Clinical Laboratories, University of Virginia Hospital. Second Edition. Cloth. Pp. 408, fifty-one text illustrations, seventeen color plates. Price, $4.50. St. Louis: The C. V. Mosby Company, 1938.

Health Insurance with Medical Care. The British Experience. By Douglass W. Orr, M. D., and Jean Walker Orr. Cloth. Pp. 271. Price, $2.50. New York: The Macmillan Company, 1938.

Our Common Ailment. Constipation: Its Cause and Cure. By Harold Aaron, M. D., Medical Consultant to Consumers' Union of United States. Cloth. Pp. 192. New York: Dodge Publishing Company, 1938.

(Continued on Page 15)



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Harold Guyon Trimble, M.D., Oakland
Cabot Brown, M.D., San Francisco

BOOKS RECEIVED

(Continued from Page 13)

Physical Diagnosis. By Richard C. Cabot, M. D., Professor of Clinical Medicine Emeritus in Harvard University, Formerly Chief of the West Medical Service at the Massachusetts General Hospital, and F. Dennette Adams, M. D., Instructor in Medicine in the Harvard Medical School, Courses for Graduates; Associate Physician at the Massachusetts General Hospital. Twelfth Edition. Cloth. Pp. 846. Price, $5. Baltimore: William Wood & Company, 1938.

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BOOKS RECEIVED

(Continued from Page 15)

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TWENTY-FIVE YEARS AGO

(Continued from Text Page 504)

sion, "in the know." But not one man in a generation can deal in them without giving offense. . . . Thinking these thoughts we have felt constrained to remind our readers that this is not our journal but your Journal. And that our columns are open to anyone who has a live thought on a live subject and is able to put the same into live English. To those who simply find fault without attempting to help us in our effort to better the Journal we would commend for their serious consideration the following definition: Criticism is the art of telling another how he ought to have done what you could not do yourself.

* * *

Good Treatment for Insurance Company.—Most generally, it is because we physicians tolerate the imposition that we are imposed upon. Five dollars is little enough to receive for an examination for life insurance, and if no physician would make such an examination for a less sum, why, $5 would be the minimum fee. That seems a simple argument and incontrovertible. And yet, as a matter of fact, we know many physicians are doing the work for $3 or less. Some, if not all, of the accident and casualty companies issue schedules of the fees they "allow" the physician for examining their insured, or for treating them, or operating upon them, and more than once has the Journal commented upon the absurdly small amounts thus "allowed." Here and there, however, we find a doctor with spine enough to stand up for his just fees and demand them—or refuse to accept the amount "allowed." . . .

* * *

An Influx.—Undoubtedly there will be a large increase in the number of physicians in California in the next few years. The taking down of the bars has already begun, and in spite of the best that it can do, the new board under the new law will be forced to license a considerable number of poorly qualified physicians. We will be wise to discount that condition in advance and prepare for it. It seems to be the desire of the people to permit almost anyone who may desire to do so, to practice the healing art. . . . Under the recent change in organization, every member of a county society is a member of the American Medical Association and is entitled to wear the badge of the Association. That in itself is an indication of some standing, and if our county units will pursue a policy of careful discrimination in the election of members, in a very few years that badge of membership will entirely take the place of a license to practice in the eyes of the better and more nearly thinking element of the community. The "drugless healer" of any sort is to receive legal recognition and the people cannot discriminate from mere names; they can be taught, however, that membership in a county medical society means something; and they can be taught that the physician who is entitled to wear the American Medical Association badge, thus showing that he is a member of his county society, is a physician who can be trusted to be something better than a licensed quack.

(Continued on Page 18)



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TWENTY-FIVE YEARS AGO

(Continued from Page 16)

The Injection of Concentrated Solutions of 606 and 914.—One of the great drawbacks to the use of the newer arsenical preparations discovered by Erlich has been the difficulty attending the proper preparation of the solution to be injected. A rather complicated technique is employed, special apparatus is used by most men, and great care is essential in the exact neutralization of the otherwise acid salvarsan solution. In a large number of cases, the toxic reaction following the injection of salvarsan or of neosalvarsan has been attributed to the water in which the drug was dissolved. . . .

From an Original Article on "The Debt of Human Embryology to the Practitioner" by Arthur William Meyer, Department of Medicine, Stanford University.—There is probably no subject in the whole realm of the medical sciences more dependent upon the practitioner for its materials than human embryology. The practicing physician alone has the opportunity to gather the windfalls without which future progress in embryology is impossible. Hence it is to practicing physicians and surgeons the world over that embryologists have been, and ever will be, indebted for the many valuable specimens which they have so generously contributed and which have made the many recent advances in embryology possible. . . .

From an Original Article on "The Ideal Hospital" by D. Gochenauer, M. D., San Diego.—The title of the paper for this evening, "The Ideal Hospital," in its more comprehensive sense, would naturally include hospital construction; this feature alone would furnish thought for data, more than enough for one thesis. Tonight, then, we will consider more particularly hospital management.

It has been said that it takes nine men and a sheep to make a woolen blanket. I quote this only to illustrate that experience has taught that under the department system, the strictest economy and highest efficiency in the manufacture of woolen goods, as well as in other lines of business can be reached. . . .

The Eight-Hour Law.—One month's practical experience under the provisions of the new eight-hour law applying to nurses' training schools, has more than verified the predicted baneful effects of this law. My statement, given in an interview to a daily paper a month ago, that I regard this law as the most atrocious and senseless of all laws enacted by the last legislature, has been forcibly emphasized by a practical test of its requirements. There is not a single redeeming feature in that part of the law which applies to hospital nurses. The law is even more hurtful to the patients, the nurses, and patrons, and the public in general than it is to the hospitals; it will diminish efficiency in nurses' training, make discipline in the schools more difficult, and interfere with the proper care of the sick. The burden of the law will be heaviest on the people of moderate means, who cannot afford the increased cost of special nursing. . . .

From an Original Article on "Implantation of Joints" by L. Eloesser, M. D., San Francisco.—In 1908 Lexer reported to the German Surgical Congress two cases of resection of a firm ankylosis of the knee where he had implanted a new joint, taken from a limb amputated for senile

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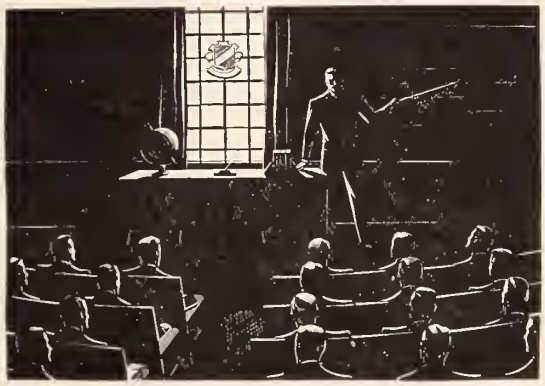
gangrene of the foot. The joints were implanted immediately after amputation. They both healed perfectly into place and subsequently showed a fair range of motion. . . .

From an Original Article on "Toxic Effects of Salvarsan" by George E. Ebright, M. D., San Francisco.—Without decrying the use of salvarsan in cases where it is properly indicated and where experience has shown it to be a most potent remedy, it is desired in this paper to call attention to some of the accidents following its use which have appeared in the literature, and to discuss those cases of arsenic intoxication reslulting from it in which there was no evident contra-indication. . . .

From an Original Article on "How to Read the Pneumothorax Manometer" by Edward Von Adelung, M. D., Oakland.—Now that the value of induced pneumothorax in the treatment of pulmonary tuberculosis is being generally recognized, it is of considerable importance that the records of different observers should be easily understood by their readers. All workers in this field agree that the manometer is an essential part of the apparatus and that it is absolutely essential to a proper estimation of intra-thoracic pressures. . . .

From an Original Article on "Iritis: Some Facts of General Interest" by Vard H. Hulen, M. D., San Francisco.—This subject has been suggested to me by several recent personal observations in which eyes have been damaged and even vision totally lost from iritis intercurrent with general disease. This important condition not being promptly recognized, correct treatment was too long delayed and valuable sight sacrificed while the patients were under the care of general physicians otherwise skilful and competent. Notably one of these patients, while under legal restraint, confined to bed by "rheumatism," had an insidious attack of iritis which destroyed the sight of his only useful eye before the official doctor appreciated the

(Continued on Next Page)



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TWENTY-FIVE YEARS AGO

(Continued from Preceding Page)

importance of the ocular condition. The patient himself asked that atropine be used, believing from the similarity of the symptoms that his other eye had been lost from the same cause some years before. From an economical standpoint the city could have better paid the full fees of an oculist for months' attention in order to have prevented the fate of this prisoner. . . .

From an Original Article on "Auricular Fibrillation" by H. W. Allen, M. D., San Francisco.—Of the numerous advances in our knowledge of cardiac pathology that have come as a result of the study of the heart by graphic methods, there is probably none of more importance to the physician than the recognition of auricular fibrillation as a clinical entity. Known among physiologists for some years as an experimental phenomenon it is only within the past three years that its occurrence among human beings has been definitely proven and as a result of this demonstration we now recognize it as the commonest form of persistent irregularity of the heart. . . .

From an Original Article on "The Futility of Cardiac Stimulants in Shock" by Saxton Temple Pope, M. D., San Francisco.—With modern surgical methods and with trained anesthetists, we see less of surgical shock than formerly. But it seems to me that these highly trained anesthetists—because of their skill in avoiding dangerous phases of anesthesia, and consequently seldom coming in contact with shock—are particularly weak in their treatment of this condition. When any untoward condition arises during the course of surgical narcosis, and especially where there are cardio-vascular phenomena connected with it, it is almost an invariable custom of anesthetists to resort to hypodermic injections of one or more of the various so-called cardiac stimulants.

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Many of these drugs are not stimulants at all, but may best be classified as cardiovascular irritants. Some really inhibit the normal cardiac stimulation—such as digitalis, the action of which is mainly one of interrupting the conduction of stimuli from the sino-auricular node to the ventricle. The majority of these drugs are cardiac accelerators, and some have absolutely no legitimate excuse for being used at all. . . .

From "The Eleventh Annual Meeting of the Pacific Association of Railway Surgeons, San Francisco, California, 1913."—Officers: Dr. David Powell, President, Marysville; Dr. R. T. Legge, First Vice-President; McCloud; Dr. S. J. Gardner, Second Vice-President, San Francisco; Dr. E. M. Keys, Treasurer, Alameda; Dr. G. R. Carson, Secretary, San Francisco.

The Eleventh Annual meeting of the Pacific Association of Railway Surgeons was held October 24 and 25 at the Palace Hotel, San Francisco. . . .

From "Announcement of the Lane Medical Library."—The arrangement, indexing and cataloguing of the Lane Medical Library are well advanced and are being rapidly done with an increased force of assistants.

The progress makes it possible for the trustees of Stanford University to announce to the medical profession and to the public that the collection of books is now available for consultation and use.

The library contains about 36,000 bound volumes in all, and 5,000 unbound volumes of journals. New books are purchased monthly as published, and at present 450 medical and scientific journals are subscribed for, which will be added to, as funds may permit. The present annual outlay for books and periodicals is about $8,000, most of which, with maintenance charges, is paid from the income funds of the University.

The Lane library is the largest, best housed, best equipped, best supported, and most useful medical library west of Chicago, and the trustees intend to make it one of the best in America—an ambition justified by its resources and demanded by our isolated position. . . .

BOARD OF MEDICAL EXAMINERS

(Continued from Text Page 504)

"Proposed enactment of the Nursing Practice Act, which will be introduced to the California State Legislature in January, was presented by Mrs. Jennie W. Gardner, state legislative chairman for the California State Nurses' Association, who spoke before the Yuba-Sutter group Friday evening. . . . The sole purpose of the proposed act is to guarantee the public the protection to which it is entitled and to maintain high standards of nursing and nursing education in the state. . . . It would create a board of nurse examiners, comprised of experienced registered nurses whose duties would be comparable in every way to those of the state board of medical examiners, dental examiners, pharmacists and others devoted to safeguarding the public health. The act provides for the regulation of schools of nursing and the maintenance of high educational standards. . . . All graduate nurses who now hold a certificate of registration would be eligible to a license by the new board, it was said. . . ." (Marysville *Appeal-Democrat,* October 1, 1938.)

"New medical director of La Vina Sanatorium is Carl R. Howson, M.D., president of California Tuberculosis Association, widely and favorably known throughout the state. Doctor Howson, who assumes his duties immediately, fills the vacancy left through resignation of Dr. Walter A. Hodges. Doctor Howson is said to rank foremost among physicians specializing in treatment of tuberculosis and is nationally known in that field. . . ." (Altadena *Press,* September 15, 1938.)

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BOARD OF MEDICAL EXAMINERS

(Continued from Preceding Page)

"Secretary of State Frank C. Jordan today announced an initiative measure, which seeks to amend the State Chiropractic Act, has qualified for a place on the general election ballot for 1940 or may be voted upon at a special election prior to that time if called by the Governor. . . . The Initiative qualified with 223,517 signatures, with only 186,387 needed. . . ." (Sacramento *Bee*, October 6, 1938.)

"Chiropractors in California cannot practice obstetrics, nor administer proprietary or other medicines, even though they are taught to do so in chiropractic schools or colleges, according to a decision just handed down by the Superior Court, Appellate Department. (*People* vs. *Fowler*, C. R.-A 1507.) (Trial court No. 81381, October 20, 1938.) The opinion was delivered by presiding Judge Hartley Shaw and concurred in by Associate Judge Edward T. Bishop. The defendant's conviction was upheld on the misdemeanor charge of violating Section 2141 of the Business and Professions Code, which is substantially the same as Section 17 of the former state medical practice act. The defendant, alleged to have used surgical instruments on an expectant mother, was asserted to have said he did so because he had ascertained her unborn child was dead and such action was immediately necessary. . . . Section 7 of the State Chiropractic Act authorizes licensees to 'practice chiropractic . . . as taught in chiropractic schools or colleges' and 'to use all necessary mechanical, and hygienic and sanitary measures incident to the care of the body.' Since some chiropractic schools teach medicine and surgery in addition to spinal manipulations, the defendant contended the California Chiropractic Act authorized chiropractors to do anything taught in such schools. This, the Appellate Department thought, was too broad an interpretation, since the statute contained two expressions, each of which has a limiting, as well as authorizing effect. 'The practice authorized' the opinion said, 'must be "chiropractic" and it must also be "taught in chiropractic schools or colleges."' Neither of these expressions can rule the meaning of the statute to the exclusion of the other, the Appellate Court concluded. The opinion then went on to define the term 'chiropractic,' pointing out that it is a drugless method of treating diseases, chiefly by manipulation of the spinal column. 'Were the word "chiropractic" of unknown, ambiguous or doubtful meaning, the clause "as taught in schools or colleges" might serve to provide a means of defining or fixing its signification, but there is here no such lack of clarity,' the court said. . . . The appellate opinion also sustained the following jury instructions: 'It is thus seen that the authority granted to a chiropractor to practice the arts taught in chiropractic schools and colleges is limited by the restriction that such practice may not invade the field of medicine or surgery, nor may the chiropractor use any drug or medicine included in materia medica, even though certain phases of the practice of medicine or surgery

or the use of such drugs or medicines may have been taught in chiropractic schools or colleges. In other words, the chiropractor is limited to the practice of chiropractic and the use of mechanical, hygienic and sanitary measures incident to the care of the body, which do not invade the field of medicine and surgery, irrespective of whether or not additional phases of the healing art, including medicine and surgery, or the use of drugs, may have been taught in chiropractic schools or colleges.' The appellant was represented by Richard H. Cantillon, John E. Glover, and Max E. Gilmore. The respondent people were represented by Ray L. Chesebro, City Attorney; Newton J. Kendall, Assistant City Attorney, now deceased; and John L. Bland, Deputy City Attorney." (Los Angeles *News*, October 24, 1938.) (Previous entries, February and April, 1938.)

"With a grimace his only outward show of emotion, Dr. Clayton E. May, middle-aged physician, yesterday heard himself sentenced to a five-year to life term in San Quentin for the abortion murder of Mrs. Doris Alexander. Superior Judge Alfred Fritz handed down that sentence on the charge of second-degree murder and ruled that a second term of two to five years, on the charge of conspiring to commit an abortion should run concurrently. . . ." (San Francisco *Examiner*, October 30, 1938.) (Previous entries June, 1938.)

"In court yesterday morning for his eighth tilt with the law on charges of violating professional standards, St. Louis Albert Estes, who advocates raw food for most human ills, was arrested again in the afternoon. Charged with representing himself falsely as a naturopath, osteopath, and dentist, Estes won a delay until Tuesday through his attorney, Alexander Mooslin. His freedom again was interrupted, this time by T. P. Hunter, special officer for the Board of Medical Examiners, who charges Estes with posing falsely as a chiropractor. He was released on $50 bail." (San Francisco *Examiner*, October 29, 1938.) (Previous entries July, 1928, May, 1930, November, 1935.)

"Reversal of Superior Judge O. K. Morton's Riverside ruling allowing Dr. Jesse Citron of Hemet an award of $12,000 as medical fees for treating W. C. Fields, film comedian, is sought in an appeal submitted Thursday before the Fourth District Court of Appeal, now in session at San Bernardino. A decision is expected to be released before the court ends its session in San Bernardino in December. . . . Field's illness was in Riverside in June, 1936. . . . Field declared that the $12,000 fee was excessive for the treatment and denied that he owed Doctor Citron more than $1,000. Field also filed a counter suit for damages of $25,000, asserting his recovery was retarded by Doctor Citron's treatment. . . ." (Riverside *Enterprise*, October 22, 1938.) (Previous entries April, October, and November, 1937.)

Conviction of Doctor Anthony Reversed.—Stating there was a complete lack of evidence, except that of accomplices, that in any way tended to connect him with the crimes, the District Court of Appeal, meeting in Los Angeles, today placed on record an order setting aside the conviction of Dr. Edward H. Anthony, prominent physician and former health commissioner.



Doctor Anthony, who at one time also was jail physician for the Department of Justice in Los Angeles, was convicted on two charges growing out of acceptance of fees for professional services he rendered George Elroy, Mrs. Elroy, and Robert D. Jones, in the so-called "fake automobile accident ring" some months ago.

In his trial Doctor Anthony admitted attending the patients, saying he had received calls at his home to do so, but that he never at any time knew or had any reason to know that they incurred their injuries in "phoney" accidents, as the prosecution had charged.

"More is required by way of corroboration than mere suspicion," the Court of Appeal decision read. "After eliminating entirely the testimony of the appellant's accomplices, the record is devoid of any evidence, even slight, which connects or tends to connect appellant with either of the crimes of which he was convicted."—Los Angeles *Evening Herald-Express*, November 18, 1938.

"Walter B. Foley, charged with practicing medicine without a license, was placed on probation for a period of two years on condition that he refrain from giving medical treatment of any sort until he had passed the state medical examination and received a license. The charge was filed against the defendant two years ago but deputy sheriffs had been unable to locate him until he recently was picked up on a traffic charge under a different name. . . ." (Pasadena *Star-News*, October 21, 1938.)

"Convicted of negligent homicide in connection with the traffic death of Arthur Erickson of San Bernardino, recently, Dr. Harvey Smith, Flintridge physician, was

(Continued on Next Page)

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(Continued from Preceding Page)

fined $1,000 by Superior Judge Arthur Crum, Los Angeles, yesterday afternoon. Doctor Smith was also placed on eight years' probation, required to surrender his driver's license and directed to abstain from the use of intoxicating liquor." (Pasadena *Star-News*, October 12, 1938.)

"Found guilty of violating the State Medical Practice Act, Jack Cleve Linney, age fifty-two, of 733 North Keystone Street, was fined $200 in police court today. Half of the fine was suspended for two years by Judge R. L. Reid, provided Linney does not practice without obtaining a license. Linney pleaded not guilty to charges last month and demanded a court trial." (Burbank *Review*, October 6, 1938.)

"Charges of practicing medicine without a license were dismissed late yesterday against F. W. Becker, manager of the San Joaquin Catalyn Company for the last five years. The case was dismissed by Justice of the Peace George M. DeWolf on the motion of Deputy District Attorney E. Clark Savory on the ground of insufficient evidence. Becker was arrested by Joseph W. Williams, examiner for the state medical board, and Amil Demes, investigator for District Attorney Dan F. Conway. They charged he assertedly diagnosed and prescribed certain vitamin products for children and adults." (Fresno *Bee and Republican*, October 21, 1938.)

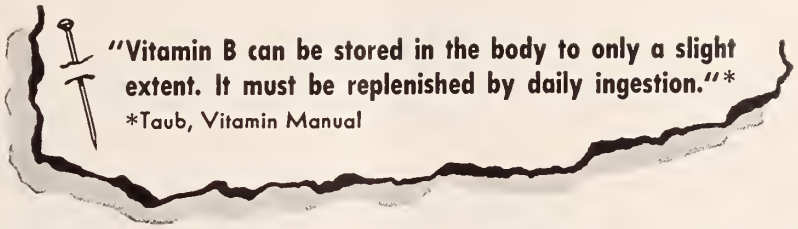
"Dr. Albert Sidney Brooks, 53-year-old Pasadena physician, who formerly maintained offices in Alhambra, was adjudged insane Wednesday as the result of a hearing conducted at Los Angeles General Hospital before Superior Judge Ben Lindsey. The physician was committed to Camarillo State Hospital, where he is expected to be transferred today. Federal charges against Doctor Brooks of sending libelous and obscene matter through the mails have been dropped it was stated." (Alhambra *Post-Advocate*, October 6, 1938.)

"Dr. William E. Balsinger, Hollywood plastic surgeon, returned from the East today victor in a libel suit filed against 'Real Detective' magazine. . . . A United States District Court jury in New York awarded him a $5,000 judgment in his suit for $20,000 in connection with an article in the detective magazine which referred to him as a quack, and which stated while he had improved the features of numerous film stars, he had not done so well on many others." (Hollywood *Citizen News*, October 20, 1938.)

" 'Dr.' Arthur William Nelson, age fifty-three, is held in the city jail for investigation in connection with his alleged attempts to cash fictitious checks in several Salinas establishments and offices. Nelson told police that while he is known as an 'artist and doctor' he does not practice medicine and has never secured a degree and practicing license for medicine. Police said the man had been reported attempting to cash fictitious checks on Main Street. He completed a ten-day term in the county jail only last week, officers reported." (Salinas *Index-Journal*, October 25, 1938.)

"Dr. Jaime De Angulo, 54-year-old retired San Francisco physician and rancher of the Big Sur District . . . was granted a year's absolute probation by Superior Judge Jorgensen on a charge of grand theft growing out of a cattle rustling incident. De Angulo, a victim of claustro phobia, a mental hazard which makes it impossible for him to remain in confinement, will not have to serve any time in jail. Several weeks ago he pleaded guilty to butchering a steer owned by A. Bronda, neighboring Big Sur rancher. . . ." (Salinas *Index Journal*, October 25, 1938.) No one by the name of Jaime De Angulo is licensed to practice medicine in California, nor does his name appear in the 1938 American Medical Association directory.

(Continued on Page 26)



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*U.S. Dept. of Agriculture, Miscellaneous Pub. No. 275, page 22



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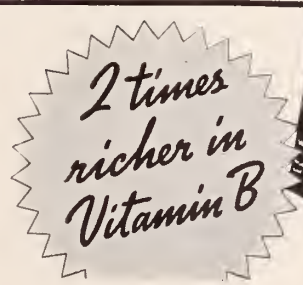
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(Continued from Page 24)

"Robert Nixon, age fifty-three, former inmate of penitentiaries in three states, was convicted of petty theft in Oakland Police Court today in connection with the alleged bilking of a priest of $53. Judge Joseph A. Kennedy set Friday for sentence. Father William Reilly, director of Catholic charities in Oakland, testified that he gave Nixon the $53 in small sums because Nixon told him he was a physician attempting to rehabilitate himself after an 'unfortunate experience' that sent him to prison. Police Inspector Thomas Evans told the court that Nixon has never been a physician and that he has a criminal record dating back to 1904. The officer said Nixon had served time in the state penitentiaries of Washington, Montana, and Iowa. . . ." (Oakland *Tribune*, November 1, 1938.)

"'Dr.' Milton Taylor Euler, sought for two months on charges of giving medical treatment without possessing a state physician's license, was presented in justice court before Judge Jacob Harder, pleaded not guilty and asked for a jury trial, which was set for November 30. . . . Thomas P. Hunter, agent of the State Board of Medical Examiners, to whom Eular surrendered October 16 on advice of his attorney, said Euler claims to have once possessed a license in New York state, but search of records thus far failed to bear out the claim. . . ." (Hayward *Review*, October 26, 1938.)

Investigation reports relate that Karl Schop Winkel on October 14, 1938, pleaded guilty in Burlingame to a charge of practicing medicine without a license and was fined $100 and sentenced to six months in the county jail. Fifty dollars of the fine was suspended, as was the jail sentence, on condition that he abstain from further violation of the law. Licenses, diplomas, etc., seized at the time of the arrest were ordered confiscated by Burlingame City Judge R. L. Stone.

Legal Status of Physicians Under the Workmen's Compensation Act of California.—For other comments concerning this case, see CALIFORNIA AND WESTERN MEDICINE, March, 1938, on page 215, and November, 1938, issue, on page 416.

S. F. No. 15,690

In the Supreme Court of the State of California

People of the State of California, ex rel., State Board of Medical Examiners, Plaintiff and Respondent vs. Pacific Health Corporation, Inc., Defendant and Appellant.

SUPPLEMENTAL BRIEF OF AMICI CURIAE IN SUPPORT OF RESPONDENT

INTRODUCTORY STATEMENT

Amici curiae respectfully request the Court's permission to file this supplemental brief. The purpose of this request is to enable us to reply to the latest brief of appellant, Pacific Health Corporation, Inc., entitled: "Oral Argument of John H. Riordan on Behalf of Appellant." [1]

Inasmuch as the instant case has been fully briefed and twice orally argued, a statement of facts and of the issues of law presented will not be undertaken.[2] Likewise, no attempt will be made to argue all of the points heretofore presented, because so to do would only result in repetition.

It is the intention of amici curiae in this supplemental brief, first, to undertake to answer and refute the assertions contained in appellant's oral argument and, second, to summarize for the Court the issues of law which have been presented by appellant, respondent and amici curiae.

REPLY TO APPELLANT'S ORAL ARGUMENT

I. Appellant's contention that the physicians selected and paid by appellant are "independent contractors" is both irrelevant and erroneous.

1 This brief will hereinafter be referred to as "App.'s Oral Argument."

2 The Brief of Amici Curiae in Support of Respondent, filed August 2, 1937, contains a résumé of the facts involved and a statement of the issues of law presented (see pp. 1-4) and Respondent's Brief, at pp. 2-18, sets forth in full the stipulation of facts and the judgment of the Court below.

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(a) Whether appellant's physicians are employees, agents, appointees or independent contractors is immaterial: it is the furnishing of medical services that is illegal.

Appellant has repeatedly urged that the physicians selected and paid by it are, as a matter of law, "independent contractors" and not employees. From this contention, appellant leaps to the conclusion that because its selected and designated physicians are not paid on a salary basis, but on a fee basis, the corporate practice of medicine is not involved.[3]

Assuming for the moment (but without admitting) that the physicians selected and paid by appellant occupy the legal status of independent contractors, the immediate problem is: What bearing does such fact have upon the legality of appellant's activities? Upon both reason and authority, the answer must be—none.

Appellant has been accused, by means of the present proceeding in quo warranto, of exceeding the powers which a private profit seeking corporation may lawfully exercise, in that it has been engaged in the practice of medicine and surgery. Specifically, appellant, Pacific Health Corporation, Inc., is accused of soliciting the public for members and then, in the event of illness or injury to such members, furnishing them with the services of physicians and surgeons selected and paid by it. Appellant admits that if its activities do constitute the practice of medicine and surgery, its conduct is unlawful. (App.'s Reply to A. C. Brief, p. 5). It then asserts that the numerous decisions in this state which settle the law to be that a corporation may not furnish the professional services of attorneys, physicians or dentists to persons with whom it contracts, do not govern the case at bar, because, according to appellant, the physicians selected and paid by it are "independent contractors" rather than "employees." [4]

Appellant's contention wholly ignores the fundamental principles involved. The Courts, in forbidding commercial exploitation of the learned professions, are not concerned with form, but with substance. It is not the master-servant relationship between a corporation and a physician or attorney, which is against public policy; rather, it is the furnishing of professional services to members of the public by corporations and the consequent commercial exploitation of the learned professions, which is against the fundamental policy of the state. Hence, the criterion by which to determine whether or not a particular corporation is engaged in the practice of a learned profession is not: What legal status is occupied by the professional person actually performing the professional services; but is: Are the professional services of attorneys, physicians or dentists being exploited by a commercial enterprise for the purpose of securing a profit for its shareholders from those persons who are in need of such professional services?

There are certain inherent distinctions between a business and a profession. A business enterprise is, generally speaking, in competition with others, and in order to attract customers, engages in solicitation and advertising. The relation between a commercial enterprise and its customers is generally that of buyer and seller, and both parties are expected to deal at arms' length. On the other hand, the relation between an attorney and his client or a physician and his patient is a confidential one involving trust and confidence, the very antithesis of the buyer-seller relation. In order that business enterprises might thrive, the law encourages legitimate competition, including extensive solicitation and advertising. A seller is allowed a great latitude in the representations which he may make concerning his product. In order to protect the public and to promote professional advancement, the law takes an entirely opposite course with respect to the professions. Solicitation and advertising are frowned upon and in order that a mutual trust and confidence may exist unhampered between attorney and client, and physician or dentist and patient, the law encourages a complete freedom of choice upon the part of clients and patients of their attorneys, physicians and dentists. In order that an attorney, physician or dentist may not be tempted to serve anything but the interests of his client or patient, the law forbids the intervention of any third party into the confidential relation. The intervention forbidden is any intrusion which might reasonably be expected to interfere with the necessary trust and confidence. Hence, the test involved is not one of legal terms, but of probable consequences.

Applying this test to the facts of the instant case, it is apparent that appellant's activities may reasonably be expected to interfere with the confidential relation between physician and patient. Appellant selects and designates the physicians to whom its members must go. This fact,

(Continued on Next Page)

[3] App.'s Open. Brief, pp. 20-27; App.'s Reply to Amici Curiae, pp. 7-15; and App.'s Oral Argument, pp. 6-20.

[4] For a review of authorities establishing the rule that a corporation may not furnish professional services, see Brief of Amici Curiae, pp. 50-56, and infra, pp. 28-32.



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alone, means that the physician selected, being human, and in all probability faced with the necessity of earning a living, will primarily be concerned with the interests of appellant. The fact that physicians selected by appellant are paid by it and not by the patient, likewise means that it is reasonable to expect that a selected physician will be, in the event of a conflict of interest between appellant and one of its members, more concerned with the welfare of appellant than the welfare of a patient from whom no compensation can be expected and whose return to the physician's office will be forbidden if appellant—not the patient—is dissatisfied.[5] From the viewpoint of the patient, it is apparent that regardless of how much lack of confidence the patient has in the selected physician's ability or integrity, the patient must accept the services of such selected physician or lose all benefits of membership. The point under discussion was succinctly, and, we submit, correctly disposed of by Judge Goodell as follows:

"In these three situations (law, dentistry and medicine), you have one factor common to all, namely, a commercial corporation, one organized for the purpose of making money for its stockholders, acting as the medium through which legal services, dental services or medical services are furnished to persons with whom it is in privity, by lawyers, dentists and physicians employed by the corporation. It makes no difference whether these professional men are salaried employees or get their compensation by way of a fee; whether they are called agents or independent contractors. The fact remains that they are subject to the orders of the corporation and its officers. *It takes no great exercise of the imagination to picture any number of possible conflicts arising between a doctor and general manager over the treatment of a member-patient.*" (Italics supplied. For entire opinion, see Respondent's Brief, pp. 10-14.)

How independent is a physician or attorney whose fees are received from one source? It is reasonable to assume that this corporation does not have more than two or three physicians—at least there is nothing in its corporate set-up requiring otherwise. The corporation fixes the amount of their fees. Any professional man who becomes identified with a corporate enterprise and who must look to one client for his livelihood, becomes, by the force of necessity and money control, a servant of the corporation. He loses both independence and the right to demand that his judgment and not that of the business manager of the corporation be carried out.

One evil inherent in the proposal of appellant, which the law condemns and seeks to prevent, is the domination of organized corporate money and power over professional men. An example too often found in the legal profession is the subservience of regularly retained attorneys of corporations in carrying out the desires of the lay management, regardless of professional ethics.

There is a constant urge upon the lay manager to secure dividends for stockholders. The only source of dividends is the income from appellant's member-patients and surplus arising from the receipt of such income. Thus, the inevitable tendency is to effect economies and reduce fees, and the major expenses involved here are the fees to be paid to physicians and hospitals. What professional man of the type willing to subject himself to such conditions would long withstand the demands of a lay manager to slight, shorten and otherwise abbreviate necessary treatment to patients. Every principle of law governing the learned professions would be violated by the legalization of such practice.

Turning to the cases on this subject, we find that the exact point now urged by appellant was considered in Pacific Employers Ins. Co. vs. Carpenter, 10 Cal. App. (2d)

[5] Appellant endeavors to shrug aside this fact by citing to the Court several of the disputable presumptions contained in Code of Civil Procedure, Sec. 1963, and by referring to cases (e. g.—Say vs. Barber, 202 Cal. 679; and Ingamells vs. Goodfellow, 109 Cal. App. 62), which hold that a physician is obligated to use his best judgment in applying his skill and knowledge (App.'s Open. Brief, pp. 26-27; App.'s Oral Argument, p. 19). The presumption and cases to which apellant refers have absolutely no bearing upon the rules of law applicable to the instant case. The Courts, in refusing to permit corporations to furnish professional services, are not dealing with presumptions and implied contractual obligations, but with human nature. Judicial knowledge, not disputable presumptions, govern the instant case. It may be that all of appellant's officers, directors, shareholders and "selected" physicians will scrupulously observe the confidential nature of the physician-patient relationship. However, is it reasonable to suppose that all business men would be as solicitous of professional principles? Suppose that we have twenty corporations organized for profit and furnishing medical services, each competing for members, what then? The answer is obvious.

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HANS VON GELDERN, M.D., Consultant

592 at 601-602, and decided against appellant's contention. In that case the brief of Pacific Employers Insurance Co. devoted much space to the argument that "designation" or "appointment" of physicians to be paid on a fee basis does not constitute "employment," and that, therefore, the insurance company was not undertaking to practice medicine. The Court, however, held that it was wholly immaterial and irrelevant whether the physicians designated by Pacific Employers Insurance Co. were employees and subject to the doctrine of respondeat superior or whether they were "appointees" and hence not legally subject to detailed control. The Court held the ultimate fact to be that the insurance company undertook to furnish the services of physicians and dentists who were to be selected and paid by it and that "any such agreement is clearly condemned as unlawful and against public policy. . . ." [6]

The case of Benjamin Franklin Life Assurance Co. vs. Mitchell, 14 Cal. App. (2d) 654, is likewise in point. In that case the insurance company's policy form provided that medical services were to be performed by physicians "approved and designated by" a policyholder's committee selected by the company. Again, the Court came to the conclusion that form was not important and that in substance "petitioner's plan, which is designated insurance, plainly provides for the sale of medical services, which is the practice of medicine" (14 Cal. App. (2d) at 658).

Other cases, some of them discussed in respondent's brief and the brief of amici curiae, could be reviewed to demonstrate that the furnishing of professional services by a corporation through the medium of licensed practitioners selected and paid by it is contrary to public policy and unlawful, regardless of whether the professional persons involved are employees on a salary basis or "independent contractors paid on a fee basis." However, to do so would merely unduly lengthen this brief. It is sufficient to repeat Chief Justice Hughes' apt observation that a profession treating bodily ills demands "different standards of conduct from those which are traditional in the competition of the market place." Semler vs. Oregon State Board of Dental Examiners, 294 U. S. 608 at 612, 79 L. Ed. at 1090.

It is respectfully submitted that appellant's entire discussion concerning "independent contractors" is immaterial and irrelevant.

(*b*) The physicians selected and paid by appellant are not independent contractors: the point, however, is immaterial.

Without in any way admitting the relevancy of the point, it may be observed that appellant is in error in asserting that the physicians which it selects and pays occupy the legal status of independent contractors. Regardless of the mode of payment, the fact remains that physicians selected by appellant are answerable to appellant as much as and probably more than a house surgeon in a hospital is answerable to the governing body of the hospital. In Brown vs. La Societe Francaise, 138 Cal. 475, it was held that the "surgeon-in-chief" of the French Hospital in San Francisco was an employee or agent of the hospital. See, also, Inderbitzen vs. Lane Hospital, 124 Cal. App. 462, and Bellandi vs. Park Sanitarium Assn., 214 Cal. 472, 6 Pac. (2d) 508.

Therefore, it is respectfully submitted that appellant's argument concerning independent contractors is both immaterial and erroneous.

II. The Medical Practice Act does prevent the furnishing of medical services by a commercial corporation and appellant, therefore, errs in asserting to the contrary.

Appellant's oral argument again stresses the assertion made in its brief that the Medical Practice Act allows a corporation to engage in professional activities (App.'s Oral Argument, pp. 17-23). It is believed that this point was conclusively refuted in the brief of amici curiae (see pp. 9-15, 50-56), but at the risk of repetition, we will again discuss the subject.

Appellant's assertion wholly overlooks the fact that the legislature itself, in enacting the Business and Professions Code (Cal. Stats., 1937, pp. 1230-1326), has interpreted the Medical Practice Act as it existed at the time of the commencement of the instant proceeding.

Sec. 2008 of the Business and Professions Code (Cal. Stats., 1937, pp. 1254-1255) provides that "corporations and other artificial legal entities have no professional rights, privileges or powers." This section, enacted in 1937, is con-

(Continued on Next Page)

[6] The language of the Court is quoted at pages 34-35, infra. It is to be noted that Pacific Employers Insurance Company intended to remunerate its physicians on a fee basis and not on a salary basis. This is mentioned because appellant seems to place great reliance upon the fact that it pays its physicians fees instead of salaries.

Bequest Forms: Unto the California Medical Association*

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I hereby give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $——— to be known as the ——— Gift, to be used and expended by said corporation for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR CASH BEQUEST

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California, the sum of $———, to be held as a fund, to be known as the [here insert name desired] Fund, the principal whereof shall from time to time be invested to the best advantage compatible with safety, and the income whereof shall be used and applied for scientific, educational, or hospital purposes.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR BEQUEST OF PERSONAL PROPERTY

I give and bequeath unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used and applied for scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California, to aid and further its scientific, educational, and hospital purposes, and to be known as the ——— Gift, the following described real property situate in the County of ———, State of California, and more particularly described as follows, to wit:

* * *

FORM OF CLAUSE OF WILL PROVIDING FOR DEVISE OF REAL PROPERTY

I give and devise unto Trustees Of The California Medical Association, a nonprofit corporation of California [here describe the property], the same, or the proceeds thereof, to be held as a perpetual fund, to be known as the [here insert name desired] Fund, the income whereof shall be used for and applied to the support and maintenance of scientific, educational, or hospital purposes. The said corporation shall have the power to sell said property and to invest and reinvest the proceeds arising from the sale thereof from time to time as it may deem advisable for the purpose of producing as large an income as may be compatible with safety.

* These Bequest Forms were discussed editorially in CALIFORNIA AND WESTERN MEDICINE, for March, 1936, p. 145, and June, 1936, p. 460.

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(Continued from Preceding Page)

tained in the chapter on Medicine, which is hereby a recodification of the prior Medical Practice Act.

Appellant also overlooks the fact that under Civil Code Sec. 285, a corporation may only be formed for a lawful purpose and that the practice of a profession has uniformly been held not to be a lawful purpose. In addition to Matter of Coöperative Law Co., 198 N. Y. 479, 92 N. E. 15, 15 Ann. Cas. 879; People vs. United Medical Service, 362 Ill. 442, 200 N. E. 157; and the other cases cited in the brief of amici curiae at pages 13-15, a recent New Jersey case, Tesechi vs. Mathis, 183 Atl. 146, expressly holds that the practice of any learned profession is not a lawful purpose for a private corporation organized for profit.

Appellant asserts that:

". . . it cannot be presumed that because a contract holder goes to appellant for medical services when afflicted, there is any more disclosure of his condition than when he goes to a private hospital, with its licensed, as well as non-licensed personnel" (emphasis ours) (App.'s Oral Argument, pp. 19-20).

Appellant entirely ignores the actual method of operation of private hospitals. A patient does not suddenly appear at a private hospital (as distinguished from public hospitals, such as county hospitals, state hospitals, etc., which operate under statutory authority) and say: "I am sick, please take care of me." Patients go to a hospital when an attending physician has recommended hospitalization. After a patient is hospitalized, his medical care is conducted by his attending physician, except that for convenience, a physician employed by the hospital and called a "house physician" or "resident" or, in some instances, a medical student serving his "interneship," may perform medical services, if such become necessary in the absence of the patient's own physician. The patient is in the hospital twenty-four hours a day, and, obviously, his attending physician, in most instances, cannot remain there constantly. Hence, in order to have medical care available at all times, hospitals, as a convenience to physicians and patients, employ "house physicians" and "residents." However, the hospital is not practicing medicine. Its physicians, technicians and nurses are, in all instances, assisting and acting under the direction of the attending physician. The attending physician is not responsible to the hospital at all, but solely to the patient from whom he



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receives his compensation. Hence, there is no intervention by the hospital or any other third party into the physician-patient relationship.

Appellant again cites and relies upon Renwick vs. Phillips, 204 Cal. 349, and asserts that in that case "it was expressly decided that there is nothing illegal in the employment by a lay person of a person licensed under the Medical Practice Act to treat the former's patrons" (App.'s Oral Argument, p. 20). As amici curiae have pointed out (Brief of Amici Curiae, pp. 54-55), Renwick vs. Phillips, supra; and Pilger vs. City of Paris, etc., 86 Cal. App. 277, were both overruled by Painless Parker vs. Board of Dental Examiners, 216 Cal. 285; and Pacific Employers Insurance Co. vs. Carpenter, 10 Cal. App. (2d) 592 at 603, in so far as they supported the proposition that a corporation may contract to furnish medical services if a licensed physician is employed to do the actual professional work. In addition, it should be noted that in both the Pilger and Renwick cases, the statements upon which appellant relies were dictum and supported by no authority.

It is respectfully submitted that appellant's assertions are wholly erroneous and that both the legislature and the Courts have conclusively settled the principles of law applicable to the instant case, as follows: A corporation may not undertake to furnish the services of physicians and surgeons selected and paid by it.

III. Appellant errs in asserting that "corporate practice of law is not involved."

After endeavoring to confuse the issue by placing fraternal orders, religious organizations, employee associations and charitable agencies on trial in lieu of it, appellant suddenly realizes that if the activities of others are to be considered, it is pertinent to reflect upon the probable effect on the practice of law, if this Court should decide in appellant's favor.

Appellant endeavors to meet this obvious fact by the amazing statement that:

"On the other hand, many legal services are today being legally furnished by corporations" (App.'s Oral Argument, p. 24).

Perhaps corporations are furnishing legal services to the general public, but we dispute the legality of such practice. Appellant then continues:

"Thus, corporations are universally permitted to contract to furnish attorneys' services in connection with all types of insurance that involve litigation. . . ."

Appellant blithely ignores the fact that an insurance company has a vital interest in the outcome of any action against an insured because a judgment adverse to the insured will have to be paid by it. Attorneys employed by insurance companies to defend actions against their insured are representing the insurance company, not the insured, and hence, there is no divided allegiance.[7] This is so elementary that it is difficult to understand appellant's reason for making the assertion unless it be sheer desperation.

Let us suppose, however, that a "Pacific Legal Corporation" is formed for the sole purpose of furnishing to the public the services of attorneys selected and paid on a fee basis by the corporation. Suppose that the corporation advertised and solicited for members and when asked to account for its activities, contended that its attorneys were "independent contractors," and that it was, therefore, not practicing law. If appellant's contentions in the case at bar are sound, does it not follow that such a corporation would likewise be lawful?

Appellant's next effort to distinguish the legal and medical professions reveals a complete misunderstanding of the medical profession. Appellant states that very few poor people need legal services, and those that do have free legal aid bureaus available! Appellant then continues:

"On the other hand, doctors do not generally do business on the contingent fee basis. In other words, they do not contract to render their services contingent upon the success of their cases. If, as occasionally happens, they take a charity case, the very term 'charity' implies they do not expect to be paid. On the other hand, they would have no charity cases if their patients belonged to organizations such as appellant. . . ." (App.'s Oral Argument, p. 27).

So, physicians "occasionally" take a charity case! This will be interesting news to all physicians. In Los Angeles County alone, practicing physicians annually donate about $2,000,000 worth of medical services in the Los Angeles County Hospital (CALIFORNIA AND WESTERN MEDICINE, Vol. 48, p. 157). If there is any profession, business or occupation in existence that does half as much charity work as

(Continued on Page 34)

7 If a corporation undertakes to furnish legal services to others for compensation to it, an entirely different situation is presented. Practice of Law, 9 Cal. Jur. Supp., pp. 333-334; 15 Calif. Law Review, pp. 243-248.

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Leaflet Regarding Rules of Publication.—CALIFORNIA AND WESTERN MEDICINE bas prepared a leaflet explaining its rules regarding publication. This leaflet gives suggestions on the preparation of manuscripts and of illustrations. It is suggested that contributors to this Journal write to its office requesting a copy of this leaflet.

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EDITORIALS†

GREETINGS AND GOOD WISHES FOR THE NEW YEAR

The December issue of CALIFORNIA AND WESTERN MEDICINE will be in the mails some weeks in advance of the Christmas and New Year's season. In anticipation, however, the OFFICIAL JOURNAL welcomes the opportunity of extending its heartiest felicitations for the approaching holidays to all members of the California Medical Association. If, perhaps, the monetary rewards for services have not been as great as in more prosperous years, physicians have at least the satisfaction of knowing that much of their work has made the lot of many beings more livable; and that thought, alone, should bring gladness to the heart.

The healing-art guild is truly a noble one, and its faithful disciples are fortunate in being able to render that peculiar aid which makes the world, for a host of persons, a far brighter and more attractive place.

May the physicians of California, therefore, in the year to come, be recipients of the kindest thoughts and expressions from grateful patients, and may they also ever be animated by an earnest desire to move forward, shoulder to shoulder, in meeting the problems which confront both scientific medicine and modern day civilization. To all, then, a Merry Christmas! and a Happy New Year!

PROPOSED VOLUNTARY MEDICAL SERVICE PLAN

Special Session of California Medical Association's House of Delegates Called for December 17.—What may become an item of major historical moment in the annals of the California Medical Association is the action taken by its Council, at a meeting on November 12, in authorizing the call for a special session of the Association's House of Delegates, to be held in Los Angeles on Saturday, December 17. At that time there will be presented for consideration a report from the Council, outlining the basic principles for a plan of voluntary medical and hospitalization service, designed to permit citizens, belonging to certain income bracket groups, to avail themselves

† Editorials on subjects of scientific and clinical interest, contributed by members of the California Medical Association, are printed in the Editorial Comment column which follows.

of such opportunity on a prepayment basis. The initial and tentative thoughts contemplate the voluntary coöperation in the plan of practically all of the more than 6,000 members of the California Medical Association.

* * *

Organized Medicine Is Admirably Adapted to Take Up This Work.—Without going into details, it should be evident that the members of the California Medical Association are in a pivotal position to participate in a plan of such large-scale medical service. Their state, county and local organizations, with a personnel already in past years, carefully selected, present excellent groups through whose members medical service of proper quality may be offered and rendered. As a matter of fact, the large number of citizens who need the proposed medical service are today, in the majority of instances, patients of the physicians who make up the California Medical Association. The problem, therefore, is not one of placing new patients under the supervision of our members, but of devising methods whereby these patients will find it less of a hardship, financially and otherwise, when unforeseen illness or injury come to them.

* * *

"Adequate Medical Care" Is Not a Simple Matter.—The solution of that problem is not a simple matter, as may be witnessed in the massive amount of survey and other literature that has come off the press in the last several years. Nor is this a new problem for the California Medical Association, our organization having spent, or misspent, probably more money (certainly in excess of $50,000 of its funds on the "California Medical Economic Survey" on an investigation of medical-care needs of citizens) than any other of the constituent state units of the American Medical Association. But even those funds, if their expenditure has aided in the crystallization of the thought of members on the needs and procedures of medical care, may be construed as well spent.

* * *

Initial Efforts with Nonprofit Hospitalization Organizations.—As is well known, our first practical efforts in this work, other than the promotion of better orientation of the problems among the members themselves of the Association, may be said to have aided in the creation of the three nonprofit groups: the first in the Sacramento region, the second that of Alameda and the third in the Los Angeles area, in which hospitalization on a prepayment basis was made available to citizens. Time has shown, however, that California citizenry wishes more than hospitalization protection; in short, the people want medical care, with hospitalization included.

* * *

California Medical Association Council Has Been Constantly Studying Medical Care Problems.—The members of the Council of the California Medical Association, upon whom has devolved the responsibility of carrying forward the instructions of the House of Delegates, as given at succeeding annual sessions of the Association, have been obliged, of necessity, to give much serious thought to these matters; and in their own meetings, and through the Department of Public Relations and special committees, there has been constant effort to find the paths to more adequate medical service, both as regards distribution and as to quality of service, to be made available to all California population groups.

In the tentative plans in mind, just referred to, the indigent and near-indigent citizens, who now receive treatment in the county and other hospitals of California are, for the moment, left out of consideration. It is the group of citizens above these in income, but who, particularly in the recent years of economic stress and strain, have found it most difficult to meet the expenses of unforeseen illness, that the proposed plans of the California Medical Association, as submitted through the special committees and Council, are most concerned.

More than this, at this time and in this column, it is not possible to state; for we do not know what will be the conclusions reached by the delegates when they meet on December 17 to consider these and related matters. On other pages* appear articles and paragraphs, shedding sidelights on some of the problems at issue. Their perusal, hasty and otherwise, is commended to the readers of the Official Journal. In the meantime, careful thought should be given to these important matters by all members of the California Medical Association, and opinions should be freely exchanged with officers and delegates, to make more certain that actions decided upon will have the approval of members, particularly in relation to basic principles.

It is to be hoped, therefore, that the special session of the House of Delegates will make for a real advancement in the practical solution and realization of these big problems of adequate medical care, at least so far as those problems affect the citizens of California.

STATE HUMANE POUND ACT DECISIVELY DEFEATED!

Scientific Medicine Supported by a Two-to-One Vote.—By a vote of more than two to one, Initiative Proposition No. 2 (the State Humane Pound Act)—a proposed law, so written as to confuse voters concerning its real purpose, and with a title legal in form and yet equally as misleading as the text—was rejected, November 8 last, when more than a million votes were cast by Californians against it.

Thus, animal experimentation—as sponsored by physicians of California, acting through the California Medical Association, the California Society for the Promotion of Medical Research, the Public Health League of California and allied friends—received the decided approval of California's

* For official notices, see page 470; for other articles, see pages 500–503.

electorate. The campaign in behalf of the measure, led by the antivivisectionist groups, and supported by one of the country's leading newspaper chains—which fairly outdid itself in full-page display of emotional articles about "man's dear friend, the dog!"—and further fortified through expensive billboard, radio and other advertising media, was carried on in most aggressive fashion. That these efforts failed but adds to the greatness and glory of the decisive victory attained. So once again, not in legislative chambers, but this time on a direct appeal to the people, the proponents of this type of law enactment have been deservedly worsted.

* * *

Antivivisectionists Failed in Efforts to Make California a Guinea Pig.—Elsewhere in this number of CALIFORNIA AND WESTERN MEDICINE appear some references to the battle, and these, with others that have been given space in recent issues, complete the story of the 1938 struggle against those who, from emotional or other incentives, would have made the State of California the guinea pig for a brand of legislation, to be tried out, one after the other, in the years to come, in other states of the Union. With the experience gained in this last of the many fights which have been made necessary, each biennium, as the antivivisectionist cohorts repeatedly have marshalled their supporters at legislative sessions behind proposed statutes that would have seriously handicapped scientific medicine in California, it should be possible for physicians in other commonwealths (possessing in proportion far fewer faddists than the large number who, in search of climatic and what-not lures, are now resident in our State) to wage successful battle against similar machinations.

The present fight is now over, with results, so far as prevention of law enactment is concerned, entirely pleasing. The money and efforts necessary to defeat Proposition Two, would give rise to less satisfactory reflections, were it not for the issues involved, so important to the public health interests and welfare of the people. Those ends amply justified the ways and means found necessary, in order to achieve such a victory.

* * *

Thanks of the Association to All Who Rendered Aid.—It is not possible to name all who are worthy of praise. Mention has already been made of the California Society for the Promotion of Medical Research and the Public Health League of California. In every county medical society of the California Medical Association, officers and committees worked unremittingly in the distribution of post cards to be sent to patients, and in the dissemination of educational literature and other printed matter, for offices and homes, and for various display. The loyal and generous support of the members of the Woman's Auxiliaries is worthy of special mention, their contribution being most difficult to estimate in terms of money, because so massively and wholeheartedly given. Credit is also due to local groups who, on their own initiative, supplemented the work of the central distributing centers in San Francisco and Los Angeles, by devising special literature and placement of advertisements in the local press. To all who gave aid, the thanks of the California Medical Association are given. The coöperation everywhere rendered was most gratifying to the Association's Council, because that body was called upon to determine the kind and amount of expenditures to be authorized. The decided endorsement, by the citizens at large, of the stand taken by California's medical profession, especially at a time when civic vagaries of all kinds are so frequently promoted and espoused, is most reassuring. It permits physicians to look ahead, and with confidence, towards other problems which must be faced and solved.

DEL MONTE ANNUAL SESSION: MAY 1–4, 1939

Scientific Papers and Exhibits, and Hotel Reservations.—Members of the Association who have in mind papers which they desire to present before one of the twelve scientific sections at next year's Del Monte annual session, should communicate promptly with the Secretary of the proper section.*

Request is also made that members wishing to display exhibits in the scientific section, should write promptly to the Association Secretary. Members of the Committee on Scientific Work may also be consulted.†

Because of the possibility of medical service plans being inaugurated, as referred to elsewhere in this department, the attendance at Del Monte will probably be greater than usual. Members who intend to be present, therefore, should send their request for reservations to the Hotel Del Monte, Del Monte, California, at an early date.

The prompt coöperation of members in the items referred to above is requested and will be appreciated.

VISITATION BY PRESIDENT W. W. ROBLEE TO COUNTY MEDICAL SOCIETIES IN NORTHERN CALIFORNIA

Official Position Means Official and Personal Responsibility and Service.—"All is not gold that glitters," and, likewise, official positions in state and county medical societies are by no means, empty honors.

True, to be elevated to office in a medical society is an honor; but if official service is not rendered in return, promotion to office is neither a credit for the society or the recipient. Organized medicine, in the present day, faces too many serious problems to permit any physician to accept office, unless it is in his heart and mind, to give service in return to the fellows who so honored him.

* * *

President Roblee's Two Thousand-Mile Journey.—It was our privilege to accompany

* Names of officers of the scientific sections are printed in each issue, on advertising page 6.

† For names of members, see committee roster on advertising page 2.

President W. W. Roblee of Riverside in a journey of two thousand miles, through the northern section of California, as he made a tour of visitations to the county medical societies in that portion of the State. It was most heartening to learn, at first hand, how earnestly and ably our colleagues are serving the people of their districts, and how interested and alert they are to present-day issues in scientific and organized medicine. To attend some of the smaller society meetings, and be present with colleagues who had convened especially to meet the president of the California Medical Association, and hear the message brought by him, some members traveled as much as one hundred miles, often over difficult mountain roads. For, let it not be forgotten that the problems in some of these more sparsely settled districts are as important to the physicians there resident, as are those confronting members who live in the larger urban and metropolitan areas. Be it also said, to the credit of our colleagues in these districts, that they are as keen to meet all the responsibilities to their profession and to their patients as are physicians living in the large cities. As an example, the story revealed by practically every society visited, of wholehearted and wise coöperation in battling the State Humane Pound Act, made one take more than ordinary pride in what has been accomplished.

A few words, in addition, on the generous donation of time and effort of President Roblee who, in this particular visitation tour, left his practice for more than two weeks. It should be remembered that officers and members of the Council, in attending meetings which total weeks, if not months, each year, are also out of pocket the money they would have earned had they been active in their own offices; their reward being the pleasure that comes from so serving their fellows and in promoting public health and medical interests. Truly, today, in contrast to years ago, when organized medicine, in so far as official duty was concerned, expressed itself often, in little more than about once each month, presiding at a medical meeting, is a very different kind of responsibility. From which the conclusion may be drawn that a physician who is not willing to serve, and to serve generously, should decline official positions. Scientific and organized medicine alike need active workers, and only such should accept office.

Other State Association and Component County Society News.—Additional news concerning the activities and work of the California Medical Association and its component county medical societies is printed in this issue, commencing on page 470.

In 1937 there were 80,322 deaths registered in California—the largest number ever to be registered during a single year. The death rate was 12.3 per thousand estimated population, which is the highest death rate for California since 1928, when the rate was 12.5. The pandemic of influenza in 1918 brought the highest death rate ever recorded in California, 17.7 per thousand population. There were 57,683 deaths registered that year, 15,600 more deaths than were recorded during the preceding year.

EDITORIAL COMMENT†

X-RAY THERAPY FOR SINUSITIS

The treatment of chronic paranasal sinusitis has always been a difficult and, at times, a rather discouraging problem in the practice of medicine. Local medical treatment, short-wave diathermy, and surgery have all been used with varying degrees of success. Any rational measure which will improve this distressing condition is worthy of consideration.

The good results secured with x-ray therapy in other inflammatory lesions, such as boils and carbuncles, suggested that this mode of treatment might be of value in the treatment of sinusitis. The reports in the literature are quite encouraging. Butler and Wooley[1] report one hundred cases of sinusitis treated with x-ray. Thirty-one per cent became symptom-free, 50 per cent were improved, and 19 per cent showed no change. In a second series of 450 cases these authors report 36 per cent symptom-free, 55 per cent improved, and 9 per cent unchanged. Rathbone[2] treated seventy children with sinus disease and stated that 57 per cent were cured, 28 per cent were improved, and in 15 per cent there was no change. These cases were followed from one to three and one-half years. Good results have also been reported by others.[3-6]

During the past few years we have treated quite a number of cases of sinusitis with radiation and have been favorably impressed with the outcome. X-ray therapy is not a panacea or cure-all for sinusitis; however, the results indicate that it is a valuable adjunct in treatment, and a more general use of x-ray therapy for this condition is warranted.

The effect of radiation on sinusitis has been studied experimentally in cats (Fenton-Laisell). It appears to be due primarily to an early destruction of the lymphocytes in the infected lining membrane. There is a gradual reduction in the thickness of the lining mucous membrane, probably due to the destruction and removal of innumerable lymphocyte cells. The cilia and cellular elements of the mucous membrane show no evidence of injury from the radiation. The amount of radiation administered is so small as to be entirely free from danger, not producing even the slightest erythema. Ordinarily three or four treatments are sufficient.

The cases that respond best are those with chronic low-grade sinusitis, with edema and thickening

†This department of CALIFORNIA AND WESTERN MEDICINE presents editorial comments by contributing members on items of medical progress, science and practice, and on topics from recent medical books or journals. An invitation is extended to all members of the California Medical Association to submit brief editorial discussions suitable for publication in this department. No presentation should be over five hundred words in length.

1 Butler, F. E., and Wooley, I. M.: Roentgen Therapy in Chronic Sinusitis, Radiology, 23:528 (Oct.), 1934.

2 Rathbone, R. Rhett: Roentgen Therapy of Chronic Sinusitis in Children, Am. J. Roentgenol., 38:102 (July), 1937.

3 Osmond, John D.: Roentgen Therapy of Acute Infections of the Antrum and Frontal Sinus, Am. J. Roentgenol., 10:374 (May), 1923.

4 Hodges, Fred M.: Roentgen Therapy of Infections of the Nasal Accessory Sinuses, Am. J. Roentgenol., 39:578 (April), 1938.

5 Smith, H. B., and Nickel, A. C.: The Treatment of Subacute and Chronic Sinusitis by Roentgen Radiation, Am. J. Roentgenol., 39:271 (Feb.), 1938.

6 Williams, A. J., and Bryan, L.: Roentgen Therapy in the Treatment of Nonspecific Respiratory Diseases, Radiology, 26:45 (Jan.), 1936.

of the lining membranes. These cases complain of headache, pain over the sinuses, and of postnasal discharge. Sinuses that contain free pus and are not draining should not be treated by x-ray but by the usually accepted procedures. After drainage has been accomplished, radiation may be used in addition to the prescribed treatment. Radiation therapy is of value in treating children, especially in those cases in which the physician hesitates to recommend surgery. Frequently a great deal can be accomplished for patients with sinus disease whose symptoms persist despite numerous surgical procedures. Following radiation, there is usually both subjective and objective improvement. The patient's symptoms disappear, and follow-up roentgenograms will show clearing of the sinuses. Occasionally there is an increase in the nasal secretion the first day or two after treatment.

It is not our contention that all cases of sinusitis should be treated with x-ray therapy. The coöperation of the otorhynolaryngologist is invaluable, and he is best qualified to determine which cases are suitable for treatment with radiation. Certainly, cases should not be treated indiscriminately. X-ray therapy will not cure all cases of sinusitis, but it is, nevertheless, a valuable adjunct in treatment, and worthy of recommendation in selected cases.

1930 Wilshire Boulevard.

Lowell S. Goin,
Los Angeles.

CALIFORNIA'S FIGHT AGAINST TUBERCULOSIS

The physician knows perhaps better than anyone else of the insidious nature of tuberculosis—of the importance of early diagnosis and of early treatment. Even today, too many deaths are caused by advanced cases of tuberculosis—cases which, had they been brought to the attention of the physician earlier, might have been cured.

The promotion of the early diagnosis of tuberculosis is one of the chief objectives of the sixty-three affiliated tuberculosis associations throughout California. The state-wide program, supported by the annual sale of Christmas Seals, provides for the prevention of tuberculosis through the use of the tuberculin test, the x-ray, and follow-up nursing programs. To date, these case-finding methods have been carried on almost exclusively among school populations, and during the past three years more than 270,000 school children have been examined for tuberculosis. The most recent survey, that of 70,000 in California schools, revealed approximately 300 cases of adult type tuberculosis—275 of these among the students themselves, and twenty-five among teachers and other school employees.

A large number of the county tuberculosis associations in California have inaugurated follow-up nursing programs to supplement their local tuberculin testing surveys. In these, the public health nurse brings the parents, relatives and friends of students found to be infected to their family physician for examination, and every effort is made to uncover the source of infection. Numerous unknown cases are brought to medical attention in this manner. The early discovery of active cases of disease by the public health nurse and the family physician is not only an important factor in reducing the annual death toll from tuberculosis—4,428 lives every year in California alone—but it is also important in preventing the spread of infection to others in that community.

However, as large numbers of the school population are being examined and safeguarded against the spread of tuberculosis, the next task appears to be in industry—a field in which little, as yet, has been accomplished. Tuberculosis is basically a problem of the working man—it claims its highest toll between the ages of 15 and 45—and may be termed a disease of industry. It is the outstanding chronic disease of industrial workers. The challenge of the early diagnosis of this disease among industrial groups is perhaps the largest tuberculosis control problem facing California today.

To bring the private practitioner in California a fuller understanding of diagnostic techniques the present plan of consultative clinics conducted by the California Tuberculosis Association, upon the invitation of the local county medical society, has been of far-reaching importance. These clinics have been held in over thirty counties to date, and have given local physicians the opportunity of conferring with chest specialists upon difficult problems in diagnosis.

It is toward the early diagnosis of tuberculosis that California's sixty-three local tuberculosis associations are striving, and for which these associations conduct their annual sale of Christmas Seals.

45 Second Street.

W. F. Higby,
San Francisco.

Death and the Workers.—As a consequence of the triumphs of science and their application in the health field we find this startling contrast in mortality data: fifty years ago 94 per cent of all mortality from disease was from acute illness, chiefly infectious; today 75 per cent of all mortality from disease is from chronic illness. Ten diseases take this toll of three out of four of our deaths. Listed according to the death rates for which they are responsible are: Heart disease, cancer, pneumonia and influenza, cerebral hemorrhage, nephritis, tuberculosis, diabetes, diarrhea and enteritis, appendicitis and syphilis. From seven of these ten diseases—all but cerebral hemorrhage, diabetes, and appendicitis—the death rates mount steadily as income goes down.

The death rate from respiratory tuberculosis is seven times greater among unskilled workers than among professional workers; three times greater among skilled workers than among the professional. Death rates from diarrhea and syphilis are twice as high for the unskilled as the professional; cancer's toll of the unskilled worker is 50 per cent higher than of the professional. The death rate from all causes is more than twice as high for the unskilled worker as for the professional.—Roche.

Disinfection of Diphtheria Bacillus Carriers.—After reviewing some of the methods formerly recommended for the disinfection of diphtheria carriers, and after pointing out some of their shortcomings, Meyer describes his own method.

He applies a 3 per cent alcoholic solution of methyl violet by means of a cotton compress to the tonsils and to the nasal mucous membrane. This solution not only spreads rapidly over the surface but also enters the folds and crypts. The only disadvantage of the solution is that it stains. The applications are made two or three times weekly.—*Journal of the American Medical Association.*

ORIGINAL ARTICLES

CHRONICALLY ILL AND CONVALESCENT PATIENTS: THEIR CARE IN INSTITUTIONS*

A MEDICAL AND STATISTICAL SURVEY OF THE INMATES OF THE LAGUNA HONDA HOME, SAN FRANCISCO

By J. C. Geiger, M.D.
Roslyn Miller
and
Hilda F. Welke
San Francisco

Discussion *by Ray Lyman Wilbur, M.D., Stanford University; Benjamin W. Black, M.D., Oakland; E. S. Loizeaux, M.D., San Diego.*

THE problem of the care and treatment of diseases and injuries is a community's primary responsibility. The prevention of preventable diseases and accidents should likewise engage the community's best efforts. Consequently, there should be facilities for hospitals for the tuberculous; for the mentally diseased; for the isolation of ordinary and obscure communicable diseases; for purely medical cases; for surgical conditions, especially the orthopedic care of fractures that are readily amenable to treatment; and, finally, for the care of the injured with its related ambulance services. The problem as a whole demands modern buildings, expensive equipment, and high standards of professional staff. The cost of such intricate care has steadily risen, despite tremendous gifts of charitable service by doctors of medicine and the student nurse, and the tax-supported institution has of late been subjected to decidedly close scrutiny.

In connection, however, with the treatment of the sick, there appears to be another problem, and one which may be forgotten or neglected, namely, the care of the convalescent and the chronically ill. The social significance of these allied conditions, especially chronic illness, which the thoughtful health official knows to be the chief cause of invalidism and death, has not been given the importance it deserves. Communal resources for the rehabilitation of the patient and his return to some fruitful occupation, possibly incidental to the particular disease, should be carefully studied, indexed, and conserved. It is for this reason that a medical survey of the patients, both ambulatory and hospital, of the Laguna Honda Home of the San Francisco Department of Public Health, was primarily undertaken. The factual data obtained are to be used for the study of future requirements for care of the chronically ill patients in this and other institutions of the Department of Public Health.

LAGUNA HONDA HOME REPORT FOR THE YEAR 1937

The first medical survey made of the records of patients at the Laguna Honda Home was undertaken for the year 1937, and resulted in an analysis of 2,961 cases: 1,902, the inmate population on January 1, 1937; and the remainder, 1,059, new entries or reëntries of patients discharged prior to that date. In this total group, 77 per cent were male, and 23 per cent female. During the year, 662 (or 22 per cent) died. At almost daily intervals, patients are discharged, some to the San Francisco Hospital of the Department of Public Health, either because of tuberculous infections or for x-ray therapy; some to accept benefits under the provisions of the old-age pension law; a few are runaways; and some leave because they have been rehabilitated to some extent and have found outside the institution a means of livelihood or source of care. In almost no instance can these releases be considered permanent, especially the aged pension group, and a constant flow of traffic in readmissions and discharges results. So, on December 31, 1937, there remained in the institution a total of 1,877 inmates, out of the 2,961 patients who were living in the Home at the beginning of the year, or who had applied for admission and had been accepted during the year's progress.

EFFECTS OF OLD-AGE SECURITY LEGISLATION

The effect of old-age security legislation is becoming more manifest at the Laguna Honda Home. Four years ago the population consisted of approximately 25 per cent hospital cases, and 75 per cent ambulatory. Recently, the case load has become divided equally between hospital and ambulatory groups, and the demand for hospital beds is constantly increasing. In 1937, 90 per cent of all cases admitted were hospital cases, and 60 per cent of this group were on old-age pensions. There is now a waiting list for hospital beds, many of the persons on the list being old-age pensioners. The follow-up of the aged who have resided in the institution, and who have reached the age of sixty-five and become the recipients of old-age pensions, reveals many interesting facts. Inmates of this type are supervised at the Laguna Honda Home as to food, as to exercise, and as to health. On leaving the institution, however, because of the old-age pension, it is found that the pension allowed ($35 per month) is apparently insufficient, or the personal budget is not regulated satisfactorily. The result, accordingly, is noted in the physical findings when these individuals of necessity must return to the institution.

RECENT TRENDS

Since March 1, 1938, a noticeable change has occurred in the character of the admitted case load. Ambulatory patients, for the first time, are applying for admission to the Laguna Honda Home. Apparently, this may be due to the so-called "recession" where the demand for employment, part-time or otherwise, of the aged group has ceased. Moreover, it is stated that this type of case has great difficulty in returning to relief rolls.

With a population of nearly 1,900, between 600 and 700 of these are kept busy with definite daily tasks, for which a number receive small cash compensation. The main result noted is that, from a social-economic standpoint, the individuals are benefited by their work, inasmuch as idleness breeds

* From the Department of Public Health, City and County of San Francisco.

TABLE 1.—*Classification According to Diagnosis*

	Male		Female		Totals	
	Total	Per Cent in Group	Total	Per Cent in Group	Total	Per Cent in Group
Arteriosclerosis	1,252	55	396	58	1,648	56
Heart disease	875	38	279	41	1,154	39
Heart disease and arteriosclerosis	748		216		964	
Hypertension	336	15	172	25	508	17
Hypertension and arteriosclerosis	265		136		401	
Syphilis	442	19	61	9	503	17
Syphilis and positive blood Wassermann	60		4		64	
Syphilis and positive spinal fluid Wassermann	31		2		33	
Hemiplegia	253	11	121	18	374	13
Hemiplegia and arteriosclerosis	162		88		250	
Hemiplegia and hypertension	59		52		111	
Gonorrhea	348	15	7	1	355	12
Gonorrhea and arthritis	43		2		45	
Arthritis	192	8	108	16	300	10
Arthritis and gonorrhea	43		2		45	
Alcoholism	251	11	30	4	281	9
Alcoholism and neuritis	33		10		43	
Senility	177	8	97	14	274	9
Fractures	164	7	59	9	223	8
Cancer	168	7	52	8	220	7
Hernia	173	8	16	2	189	6
Dementia	81	4	83	12	164	6
Dementia and senility	31		38		69	
Prostate disease	131	6	0	0	131	4
Tuberculosis	71	3	16	2	87	3
Tabes	67	3	11	2	78	3
Tabes and positive blood Wassermann	41		5		46	
Tabes and positive spinal fluid Wassermann	32		4		36	
Nephritis	53	2	21	3	74	2
Drugs	61	3	7	1	68	2
Drugs and dementia	1		0		1	
Neuritis	48	2	16	2	64	2
Neuritis and alcoholism	33		10		43	
Diabetes	40	2	19	3	59	2
Diabetes and arteriosclerosis	26		16		42	
Asthma	37	2	11	2	48	1.6
Parkinson's	37	2	8	1	45	1.5
Sclerosis	28	1	7	1	35	1.0
Cirrhosis of liver	31	1	4	0.6	35	1.0
Rheumatism	19	0.8	10	2.0	29	1.0
Rheumatism and heart disease	14		9		23	
Epilepsy	19	0.8	9	1.0	28	0.9
Thyroid disease	2		18	3.0	20	0.7
Other diagnoses	69	3.0	28	4.0	97	3.0

discontent. Furthermore, the use of inmate help, besides the additional happiness and contentment accorded the workers by their employment, is a substantial saving to the taxpayers and reduces the per diem cost per patient in the operation of this institution.

CLASSIFICATIONS

A surprising fact is to be noted in an examination of the tabulation (Table 2): Ages on admission—40 per cent of the entire group entered the Home under sixty years of age; 26 per cent in the age group, fifty to fifty-nine years; 10 per cent, forty to forty-nine; and the remaining 4 per cent, under forty years. So large a group, incapacitated for gainful employment before reaching the age of sixty, gives rise to speculation as to the social, economic, or physical factors operating to produce the condition, and brings up a question as to whether or not efforts toward rehabilitation can be so directed as to cause a return of at least some of this group to economic independence.

The colored population is only about 4 per cent of the entire inmate group and includes Chinese, Japanese, and Negro. The greatest number in the colored group is found among the Chinese. (Table 3.)

TABLE 2.—*Ages on Admission*

Age	Male	Female	Total
Total in Groups			
Under 30 years	15	0	15
30-39 years	59	20	79
40-49 years	211	83	294
50-59 years	608	165	773
60-69 years	833	186	1,019
70-79 years	438	159	597
80-over	119	65	184
Per Cent in Groups			
Under 30 years	.7	0	.5
30-39 years	3.0	3.0	3.0
40-49 years	9.0	12.0	10.0
50-59 years	27.0	24.0	26.0
60-69 years	36.0	27.0	34.0
70-79 years	19.0	23.0	20.0
80-over	5.0	10.0	6.0

While no special significance is attached to the fact, it is interesting to note that 50 per cent of the inmates are foreign-born, and only 11 per cent are natives of San Francisco. (Table 4.)

A review of the figures on the marital status (Table 5) of the inmates shows a total of 85 per cent either single, widowed or divorced, indicating that dependence upon aid outside the home increases in those groups where the individual is forced by circumstance to rely solely upon himself. Only 15 per cent of the group were married and entered, presumably, from established homes.

TABLE 3.—*Classification According to Race*

Color	Male	Female	Total
White	2,188	661	2,849
Black	22	11	33
Chinese	47	5	52
Japanese	20	0	20
Other	5	1	6

The colored population is about 4 per cent of the total.

TABLE 4.—*Classification according to Place of Birth*

Birthplace	Total	Per Cent in Group
San Francisco	336	11
United States	1,136	38
Foreign	1,487	50
Unknown	2	

TABLE 5.—*Marital State*

	Male	Female	Total	Per Cent in Group
Single	1,182	115	1,297	44
Married	330	126	456	15
Widowed	538	385	923	31
Divorced	231	52	283	10
Unknown	2	0	2	0

Because of the repeated discharges and subsequent reëntries, it is almost impossible to estimate the length of stay, the time for which these individuals are dependent upon municipal support. A computation, however, has been made on the length of stay (Table 6) in the case of the 662 inmates who died during the year. Of these, 412 (or 62 per cent) of the total group remained less than one year, in periods ranging from one day to a full year's time. Twenty per cent remained for periods from one to five years, 12 per cent from six to ten years, while the remaining 6 per cent were for varying lengths of stay, one inmate staying under the care of the institution for thirty-six years.

The type of previous employment seems to have had but little effect upon the incidence of certain

TABLE 6.—*Classification According to Length of Stay in the Institution*

Length of Stay	Male	Female	Total
0- 1 year	308	104	412
1- 2 years	39	10	49
2- 3 years	25	5	30
3- 4 years	27	3	30
4- 5 years	20	2	22
5- 6 years	20	1	21
6- 7 years	15	4	19
7- 8 years	8	3	11
8- 9 years	15	0	15
9-10 years	14	2	16
10-11 years	6	1	7
11-12 years	7	1	8
12-13 years	5	3	8
13-14 years	2	1	3
14-15 years	1	1	2
15-16 years	3	0	3
16-17 years	0	0	0
17-18 years	0	0	0
18-19 years	1	0	1
19-20 years	2	0	2
20-24 years	0	0	0
24-25 years	0	1	1
25-29 years	0	0	0
29-30 years	1	0	1
30-36 years	0	0	0
36- years	1	0	1

TABLE 7.—*Classification According to Occupation*

Occupations	Total Male	Total Female	Total	Heart Male	Heart Female	Heart Total	Hemiplegia Male	Hemiplegia Female	Hemiplegia Total	Hernia Male	Hernia Female	Hernia Total
Sedentary	88	18	106	45	4	49	13	1	14	7	0	7
Sedentary—moderate physical	166	35	201	68	16	84	32	8	40	15	1	16
Moderate physical	436	284	720	233	109	342	72	42	114	49	5	54
Physical	550	22	572	282	13	295	71	2	73	58	1	59
Hard physical	457	0	457	211	0	211	49	0	49	36	0	36
Housewife	0	294	294	0	129	129	0	66	66	0	8	8
Mental	61	13	74	31	7	38	13	1	14	7	1	8
Unknown—none	5	12	17	5	1	6	3	1	4	1	0	1

Per Cent of Totals in Above Groups

	Total	Heart Per Cent	Hemiplegia Per Cent	Hernia Per Cent
Sedentary	106	46	13	7
Sedentary—moderate physical	201	42	20	8
Moderate physical	720	47	16	7
Physical	572	52	13	10
Hard physical	457	46	11	8
Housewife	294	44	22	3
Mental	74	51	19	11
Unknown—none	17	35	24	6

diseases, which might conceivably be adversely affected by physical exertion or lack of it. Table 7 indicates results obtained in checking the occupations of inmates upon admission.

MEDICAL CASE HISTORIES

Because of the purpose for which this survey was initiated, interest centers on the medical case histories. In so selected a group, certain diagnoses are expected definitely to appear. So it is not surprising that arteriosclerosis is found in 56 per cent of the cases, heart disease in 39 per cent, with hypertension in 17 per cent of them and hemiplegia in 13 per cent. A high incidence of venereal disease was found, either present or in past histories, 17 per cent indicating syphilis; 12 per cent, gonorrhea. A total of 1,933 cases showed that blood Wassermann tests had been done, 13 per cent of which were positive; and 314 spinal fluid Wassermann tests, 29 per cent of which were positive. No other disease of the degenerative type was found present in more than 10 per cent of the cases. Neither alcoholism (9 per cent) nor cancer (7 per cent) assumed an importance that might have been anticipated in this age-weighted group. The low incidence of tuberculosis (mostly in past histories) is accounted for by the fact previously stated that active cases of tuberculosis are discharged to the San Francisco Hospital for treatment. Table 1 affords in greater detail an analysis of diagnoses found.

MORTALITY FIGURES

To the original compilations in this survey have been added a tabulation on certain causes of death, and a comparison between the inmate deaths at the Laguna Honda Home and the deaths in the age group above thirty-five years in San Francisco as a whole (Table 8). The outstanding difference, as

TABLE 8.—*Mortality*

Cause of Death	Deaths in Laguna Honda Home	Per Cent in Group	Deaths in San Francisco (thirty-five years—over)	Per Cent in Group
Arteriosclerosis	12	2	72	0.9
Heart disease	469	71	2,749	33
Syphilis	25	4	114	1
Hemiplegia*	4	0.6	537	7
Cancer	90	14	1,191	14
Nephritis	7	1	593	7
Diabetes	3	0.5	197	2
Cirrhosis of liver	6	1	216	3

* This title includes cerebral hemorrhage, cerebral embolism and thrombosis, cerebral softening and hemiplegia.

is to be expected, is the excess of inmate deaths from arteriosclerosis, heart diseases, and syphilis. Cancer deaths show the same ratio in each group. The comparison serves only to emphasize the fact that the survey involves a specialized group, in which additional weight is necessarily given to such governing factors as age, social, economic, and physical conditions.

EMERGENCY HOSPITAL SERVICE OF SAN FRANCISCO

A service designed primarily to care for the injured, and acute and chronic ill is the Emergency Hospital Service. In 1937, 21,000 ambulance calls were made and 11,500 transfers between the Emergency Hospitals, the San Francisco Hospital, and the Laguna Honda Home. During the year, 71,633 patients were admitted for treatment. Indicative of the fact that younger-age groups are subjected to greater hazards, and demand emergency care more frequently, is the following tabulation on the age distribution of these cases, in which 66 per cent of them fall into the group below forty years of age:

Age Distribution of Emergency Hospital Cases

1937

Age	Total	Per Cent in Group
Under 5 years	4,681	7
6-19 years	13,940	19
20-39 years	28,811	40
40-59 years	17,024	24
60-over	5,459	8
Unknown	1,718	2

OTHER MUNICIPAL SERVICES

Two other services municipally supported are the care of the convalescent and the service of city physicians. Neither of these services is confined wholly to the care of the old-age group or the chronically ill in the city-wide population. During 1937, the city physicians reported a total of 16,259 service calls, including home visits, office calls, and repeat visits. The home visits, which constitute nearly 80 per cent of all calls, were made to those persons too ill to pay office visits, or to the chronically ill under investigation for admission to the San Francisco Hospital or Laguna Honda Home.

Most of the convalescent care available for patients from the San Francisco Hospital is given children. The Hassler Health Home affords care for the adult convalescent from tuberculosis; the Laguna Honda Home, for the aged and infirm. While, in addition to the above, care is available for women at the Ladies' Protective and Relief Home, there is no other institution offering care for men, although both men and women, if living in their own home, may be allowed the services of a housekeeper or visiting nurse during convalescence.

Another benefit given the chronically ill, aside from hospitalization or when hospitalization is not indicated, is the filling of prescriptions through the pharmacy at the San Francisco Hospital. It is estimated that in 1937, 5,250 prescriptions of this nature were handled in addition to the 10,400 furnished to the Central Chest Clinic of the Department of Public Health for dispensation to its patients.

COMMENT

The term "chronic illness" carries with it the suggestion of incurability in the aged, when it may be also applied to early, middle, and late life. The congenital defects of birth, the high and crippling rate of accidents of modern life, especially from the automobile, and the condition of those severely handicapped because of lesions of the heart and kidneys, all contribute their share of cases of the so-called chronics. Chronic illness, therefore, is not synonymous with old age. It is possible for persons to adapt their occupation satisfactorily to changed conditions incidental to the accompanying disease. The prevention of chronic disease challenges the attention today of the thoughtful health official, and public welfare demands organized efforts to assist the chronically ill. In this connection, the control of cancer is one of the most fruitful frontiers.

There are many economic problems created within the family by chronic illness. Mounting costs of care and the protracted course of the illness will directly affect every member of the family. This problem is generally recognized in the case of tuberculosis, but the cardiac and the kidney cases generally must shift for themselves. Trade-unions, with their prescribed hours and standardized wages, have never viewed the problem of the handicapped part-time, pieceworker with any degree of intelligence. Moreover, workmen's compensation laws authorize agreement between employers and employees as to certain diseases and injuries incidental to the employment, but the noncompensable injury and disease has never been envisaged or discussed until in recent years. There are other problems of the chronically ill whose families waste enormous sums on healing cults and the patent medicines so attractively advertised and so readily purchased. Someone has estimated such costs as at least a billion dollars a year. There is abundant evidence as to what has been accomplished in the control of communicable disease in San Francisco. Certainly, any attack, if only partially successful, on chronic diseases will conserve life and resources. Finally, the chronically ill have the right to every expert medical care which the modern, well-trained physician and the well-equipped institution can render. It will be of public interest, will add a new chapter to preventive medicine in San Francisco, and produce fertile fields for teaching the student of medicine in disease problems that will engage his future work more and more, to observe the consummation of contemplated hospital plans in the Laguna Honda Home of the San Francisco Department of Public Health.

101 Grove Street.

DISCUSSION

RAY LYMAN WILBUR, M.D. (Stanford University).—As Doctor Geiger's paper indicates, we are facing some entirely new responsibilities in the care of the aged and conva-

lescent. The Social Security legislation and the general attitude that the Government will take care of those who are rich in years and poor in financial resources are sure to have their effect.

It is surprising to find that 40 per cent of the entire group entering the Laguna Honda Home were under sixty years of age. We have built up our institutions with the idea of taking care of those who were incapacitated by mental or physical condition from earning their own living. It looks now as though a goodly number of those coming to our institutions will apply for entrance upon the showing of age alone. With the many benefits that are coming to the American, with greater knowledge of disease and nutrition, it looks as though the younger people of the future would have quite a contract on their hands to take care of those who have retired from the race.

It is about time for us to review our whole attitude toward chronic illness, the employment of the handicapped, and the care of the convalescent. This means that we shall need to restudy the functions of all of our public institutions. The manifestations of disease are changing, the age level is rising, and the attitude of many toward receiving free care is undergoing modification. As these statistics presented by Doctor Geiger and his associates indicate, we are in for a period of readjustment which we must face without preconceptions if we are to obtain answers that are satisfactory or reasonable from the financial standpoint.

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Benjamin W. Black, M. D. (Alameda County Hospital, 2701 Fourteenth Avenue, Oakland).—The medical and statistical survey of the inmates of the Laguna Honda Home in San Francisco, as presented by Dr. J. C. Geiger, has been read with great interest.

The Alameda County set-up for the care and treatment of the chronically ill, as well as the services rendered by other institutions, covering emergency care and necessary medical services to the indigent sick, correspond closely to the plan outlined in Doctor Geiger's report. The results of the survey presented by Doctor Geiger, in connection with the classifications presented according to diagnosis and ages on admission, are very similar to that found in our own chronic institution. Several years ago it was determined that, as a policy, only persons whose physical or mental handicaps and disabilities were such as to require institutional care would be admitted for continued care in the county institutions. Prior to that time there had been a comparatively large number of individuals who were able to live outside but who preferred to remain in our Fairmont Hospital, set aside for the custodial care of such patients. The basis of the policy, as stated when reviewed, indicated that even though persons able to live outside required relief at the expense of the county, their maintenance other than in institutions was desirable. By maintaining such patients at public expense on the outside, it permitted the county to avoid expensive construction projects and the maintenance of institutions for the care of such patients, when actually the daily expense for maintenance on the outside was no greater than the general expense of maintaining them after the institutions were built. This has rather changed the picture of the care of aged persons who are not ill and who, with safety, may be maintained outside of institutions.

Fairmont Hospital of Alameda County has today 810 inmates and patients. Of this number, 505 are actually hospital-bed cases, and 305 are ambulatory, but all of them are suffering with disabilities which prohibit their living in the community and prohibit their being discharged from the institution. For several years past, careful attention has been directed toward their rehabilitation and discharge, even though when discharged certain maintenance must be supplied at the expense of the public. Last year, in our Fairmont Hospital, with its 820 beds, there were 2,053 admissions with a total of 3,619 patients being treated during the year; with a total number of hospital days' supply, which includes the number of days each patient and inmate was in the institution, amounting to 295,945 days. The average hospital days for each patient totaled 102.47. There is included in this number of patients, however, the care of chronic tuberculosis. An institution is set aside for such care and the set-up is not duplicated in the other two county institutions. To this department there are admitted far-advanced cases suffering with tuberculosis, as well as cases requiring chest surgery. Our experience in segregating such cases, with considerable attention toward their physical and mental rehabilitation, has been most encouraging. Some thirty-three patients in this department received major surgery during the year. Some seventy patients, spoken of as inmates, were discharged under the old-age pension, but many of them have returned when it was found that they were unable to adjust themselves to the requirements outside. Our average age limits are a little higher than those mentioned by Doctor Geiger. We find fewer in the lower income groups and more in the extremely old-age groups than he has indicated. Classification of diseases is approximately as mentioned by him.

I am in agreement with Doctor Geiger in some of his conclusions, but particularly where he states that the term "chronic illness" carries with it the suggestion of incurability in the aged. Our own experience over the past ten years has led us to believe that many persons thought of as chronically ill and incurable are capable of more or less recovery and subject to a degree of rehabilitation that permits a return to the community life. Chronic illness is not synonymous with old age. Much more attention should be given to the type of patients covered by Doctor Geiger's survey, and the thoughtful health officials must continue to utilize all facilities to assist in the return of such persons to community life rather than maintain them for the long period of years, suggested by his survey, in institutions at the expense of the public.

It is noticeable in our services that physicians themselves are less responsive to the need of the chronically ill, not only in institutions but in practice. This is probably a natural consequence of the continued desire on the part of the physician and the patient, the tangible evidences indicating recovery must be present if successful medical care is being applied. A change of psychology in dealing with the chronically ill, particularly in the community, would be one important step in the rehabilitation of such persons.

The paper is worthy of careful attention, and I hope that it will stimulate similar studies where chronic patients are being cared for in public institutions.

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E. S. Loizeaux, M. D. (San Diego County General Hospital, San Diego).—There is little question that the care of the chronically ill, the infirm, and the aged have a distinct place and responsibility in our social scheme. The paper is most refreshing in view of the occasional reappearance of that old barbaric discussion under the term of "euthanasia." We, of California, perhaps are to such an extent particularly imbued with the joy and practice of living that we have attracted to us, in addition to others, the thwarted, the homeless, the wandering, and the infirm, some with their families. These groups necessarily fall on municipal or community care, particularly in sickness, and very frequently before even that arises. Advancing years make the situation more confirmed, readily accounting for the 85 per cent in Table 5. Two small very readable books closely allied to this subject deal encouragement and help to those who, through the efforts to solve this question, find their paths winding. I speak of Dr. Frederic Peterson's "Creative Reëducation" and Dr. Alfred Worcester's "The Care of the Aged, the Dying, and the Dead."

Regarding institutional care it would seem that those amenable to reëducation should properly be separated from the mentally infirm and aged, and that considerable group, who, although still living and breathing and even ambulatory, have achieved a sort of physical nirvana. The desirability of separating these groups from the acutely sick is undebatable, and the segregation of the tuberculous is also beyond discussion. In many instances where domiciliary care alone is required, the social worker should be at his or her best in deciding a useful spot for the same, and should carry them along with the knowledge that, whereas many do well under the management of institutional care, they do poorly without such control. These should be recognized after carefully supervised trial and permanently institutionalized.

There has developed in this community a group of nursing homes which are under license and subject to supervision. They carry the chronic, infirm, and some convalescent cases in a very efficient manner, many times serving

the double purpose of self-support and individualized care which, in certain cases, is very desirable, particularly for those who have not been able to adjust themselves to the drastic change in social status that may have been their lot. This, with old-age security, keeps the county home at a perceptibly lower census.

In closing these remarks, I cannot refrain from mentioning our present view of these charges. They were formerly "indigents," "dependent poor," or "paupers." We find ourselves now referring to them as "patients" in the public hospitals, "clients" of welfare, and "guests" at the county farm or home. Even the latter is softened by leaving out the word "county" and calling it "Edgemoor," "Laguna Honda," or "Fairmont," as the location may be.

Work, as has been portrayed at Laguna Honda, is a splendid feature in reconstruction and well worthy of organized extension such as is done with the blind and others. In speaking of work, Gibran makes "The Prophet" say: "And if you cannot work with love but only with distaste, it is better that you should leave your work and sit at the gate to take alms of those who work with joy."

TUBERCULOSIS IN SAN QUENTIN*

By Leo L. Stanley, M. D.
San Quentin

FAIRLY complete records have been left regarding health conditions in San Quentin Prison since its establishment in 1851.

The care and treatment of tuberculosis presented a great problem in the early days; but the records speak for themselves.

1854: POPULATION, 236

The prison was first established in 1851 at Point San Quentin. The prisoners were leased to a contractor and were occupied in making brick. J. M. Estell, the lessee, in speaking of general conditions at that time, stated that "dense fogs prevailed for five months in the year. Heavy winds lift dense fogs over the summit of Mount Tamalpais and precipitate them, without notice, on the eastern slope, rendering it impossible to distinguish an object at a few yards. It frequently happens that several days will elapse without the possibility of taking the prisoners from their cells in consequence. On one occasion the prisoners passed an entire week in their cells without being able to go even to their meals, fog being so dense." A legislative committee reported that "the general clothing of the prisoners seemed too scant for winter weather, the most of which clothing appears to be the last remains of what was worn there by them, now in such a tattered, torn, forbidding and filthy condition that the common street beggars would have appearance by comparison of a newly Parisian-clad gentleman. The bedding seemed to be insufficient to protect them from absolute suffering from cold. They have one coarse, shaggy, double blanket, but some lack even this, and they are compelled to sleep with their day clothes on, shoes and all (if they chance to have them). In the so-called 'long room,' prisoners are turned loose like so many brute animals in a corral to stay and sleep, the young, middle-aged, and old. The manner of stowing away such a number in so small a space is accomplished by standing bunks close to each other. The stench ensuing from the room when opened in the morning would have to be imagined, as description is impossible."

1858: POPULATION, 582

In this year Dr. A. W. Taliaferro, as resident physician, reported to the warden: "As you know, the men when locked up are literally piled one upon another. This fills the room with animal heat and impure air. The mornings are cold and chilly when the men are called out to work. Sudden transition from heat to cold, with their bodies much relaxed and debilitated by the heat and impure air of the rooms, renders them very susceptible to pulmonary diseases." Of the 374 cases treated during this year, 150 were for influenza, seven for pleurisy, three for pneumonia, and three for phthisis pulmonis.

1863: POPULATION, 551

In this year Dr. J. B. D. Stillman was appointed visiting physician by Leland Stanford, president of the State Prison Directors. Doctor Stillman was a father of the late Stanley Stillman and J. M. Stillman, both professors of Stanford University. He stated that "phthisis carries off the greatest number of all those who die from natural causes. The Indian race suffers particularly from this cause, as they appear to do wherever they are subject to confinement. Of the seven deaths from tuberculosis disease during the previous two years, six have fallen upon Indians."

1868: POPULATION, 711

"An examination of mortuary reports shows that most of the diseases occur from consumption and are confined mostly to the Indian race. It is worthy of remark here that the Indian race is particularly prone to scrofula and scrofulous consumption when brought to this place. Free as the air when upon his native heath of all hereditary disease, here he soon falls victim to those ills flesh is heir to, and sentence to this place is almost a sure doom for life."

1873: POPULATION, 916

Dr. P. E. Randle, reporting to Lieutenant Governor Pacheco, stated that "a large portion of the convicts sent to the prison are afflicted with chronic diseases upon their arrival, such as syphilis, phthisis, and scrofula. These diseases are generally contracted previous to arrest and aggravated by confinement. Some do not recuperate sufficiently to be able to perform ordinary labor for weeks and months, and some never recover, but linger awhile and die from exhaustion and delapidated constitution. We have four rooms with forty-five men in each, and one-half, if not more of them, are afflicted with various maladies. They are locked up for thirteen to fourteen hours out of the twenty-four, sleeping and existing in a fetid and illy ventilated atmosphere made absolutely poisonous by exhalations from diseased lungs and unwashed surfaces, and effluvia arising from accumulations of excrementitious matter deposited in a common receptacle during all these hours." In February, 1876, fire destroyed the principal workshops, including quarters for nearly one hundred prisoners. Prison rules

* Read before the General Medicine Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

adopted confined to the prison quarters all convicts not engaged in some employment or occupation, which resulted in the locking up of over five hundred persons each day, twenty-four hours of the twenty-four."

1879: POPULATION, 1525

At this time only three hundred prisoners were employed by contractors in the shops, making furniture and sash-and-door products. As a result, over five hundred had to be kept in confinement. A limited number at a time were let out for exercise. Causes of death for this period, at which time the rate was seventeen per thousand, were attributed to congestion of the lungs, phthisis pulmonis, chronic bronchitis, bronchial consumption and pulmonary gangrene. Dr. J. E. Pelham, surgeon, remarked that "there has been an increase in the number of chest diseases." "As a rule, in these cases," he remarks: "The subject visits me suffering from a cold, more or less severe, affecting the air passages. The same cause of disease still operating, the patient may present himself with chronic inflammation of the larynx, pharynx, or trachea, which by easy grades passes to chronic bronchitis and finally terminates in bronchial consumption. The remedy for this state of affairs would be the confinement of the prisoners in their cells until a later hour in the morning."

1880: POPULATION, 1500

The new prison at Folsom was opened at this time, and two hundred prisoners were sent from San Quentin. Of these two hundred, Dr. W. W. Grover, surgeon at Folsom, reported, "over 30 per cent were suffering from chronic or organic disease which, together with long confinement and vicious habits, have so enfeebled them that they are unable to perform any laborious work, and are subject to constant and daily medical treatment." A jute mill was established at San Quentin in 1881 with one hundred looms.

1883: POPULATION, 1191

Dr. N. J. Bird reported that "we have nearly twelve hundred prisoners, of whom about one-third are either totally or partially disabled—some scarcely able to walk through the gates on their arrival here." At this time there were thirteen deaths, seven from phthisis pulmonis, one from scrofula, two from emphysema of the lungs, and one from pneumonia. The doctor remarks that "although there were an unusually large number of deaths during this year, yet, when we take into consideration the history of the patients and the character of their diseases, the wonder is not that so many died, but that so many lived so long."

1885: POPULATION, 1180

A two-story brick hospital, costing $8,000, was constructed at San Quentin, but "during that year," wrote Dr. T. B. Eagle, "we have had a high death rate, the greatest number of cases of mortality resulting from that dread disease, consumption. Of a total of twenty-nine deaths, eighteen died of pulmonary disease and three of scrofula." Light upon

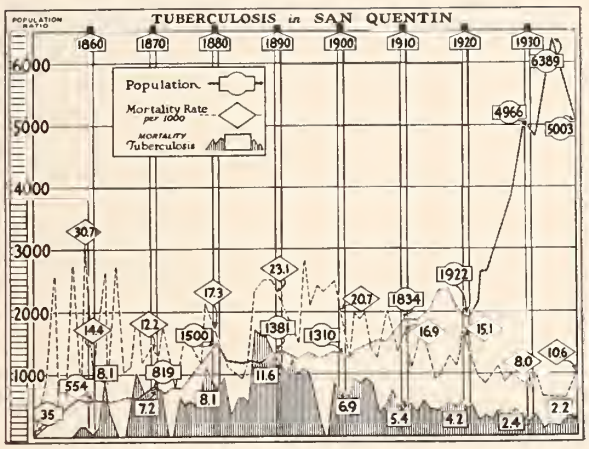


Fig. 1

the increased mortality and morbidity of prison at this time is cast by the observation of the resident physician that "our new improved hospital facilities are known to most of the courts of the state, and in consequence our chronic and invalid population has largely augmented." Chaplain W. H. Hill noted, among other things, that he attended thirty-one funerals.

1888: POPULATION, 1277

Dr. F. C. Durant, then writing about Indians and Mexicans, said that "they stood imprisonment very illy. More than half of the hospital admissions were from these two classes. Very soon after coming in they break out with scrofulous or syphilitic sores, which, on treatment, mend, and then attack the lungs and they die of phthisis." During this year, on account of the increased demand for jute bags, it became necessary to enlarge the jute mill and work a day-and-night shift.

In 1889 Doctor Durant again observed the tuberculosis situation in the following words: ". . . I desire to call your attention to the unusual number of deaths from consumption—seventeen, half of the whole number of deaths, from this fell scourge. Nearly all came here with the disease perfectly developed and easily distinguishable. I now have five men in the hospital who will eventually die with this awful disease, whose lives could have been prolonged could they have been sent to a more salubrious climate.

"Therefore, I am in hearty accord with Doctor Ruggles of the State Board of Health when he proposes to have the Board issue a circular addressed to all judges asking them to carefully examine (or have the county physician do so) all prisoners, and have them send those who have the slightest lung trouble to Folsom, for this reason: that the increased dryness of the air at that place is greatly to the advantage of all who suffer from lung troubles, more particularly consumption and asthma.

"It is well known that the Bay climate is the worst possible for those troubles; therefore, for the sake of extending the life of those suffering from those troubles, and for the better preservation of the health of the convict, it would be only humane to send all who show the slightest disease of the lungs to Folsom.

"Another thing is the great number of Spaniards who develop this disease. After being confined here for a few weeks, they commence coughing and rapidly go down, are taken to the hospital, and eventually die in spite of all medication.

"The jute mill seems to be the worst place for them, and I am very careful to take them out of the mill when my attention is first called to them and put them in the road gang, where they sometimes pick up, but in nearly every case the relief is but temporary, and they soon sicken and die.

"Taking data from these facts, I would most strongly urge upon the Board of Directors to cooperate with the Board of Health, and call upon the different judges to send all who are so afflicted to Folsom. . . . The death rate continues to be somewhat large. This is owing to the large per cent of Spaniards, Indians and Chinamen who, from the very nature of things, are prone to develop consumption, scrofula, and other kindred diseases."

1890: POPULATION, 1381

The report of the doctor for the following year, 1890, is somewhat encouraging. "While the death rate is smaller than last year, yet it has not kept within my expectations, being but two less than the previous year. This was due to the very severe weather we had in January, when the whole country was suffering from the 'grippe'; the men, while not dying from the 'grippe,' were so affected by it that they never recovered; this, particularly among men who were troubled with lung difficulties. Thus, we had ten deaths in April, which was an unusual number; but you will see by the tables that this occurred among the phthisical patients almost entirely."

But in reply to this note, the report of Doctor Eagle of Folsom: "I desire to take issue with the effort that is being made in certain quarters tending to establish at this prison a 'sanitarium' or 'lying-in asylum' for all the broken down phthisical criminals of the State. I will admit that the climate here is all that can be said for it, so far as its benefits are concerned to the consumptive, the rheumatic, and the syphilitic; but so long as the present sanitary conditions here obtain, and until our narrow and limited hospital accommodations are enlarged, it would not be only unwise and inhuman, but exceedingly detrimental to the interests and health of this institution, to foist upon it the burden and care of the *bacillus-bearing* criminal to propagate and spread disease and death in our little community. To treat tuberculosis successfully, strict isolation must be resorted to, and the most stringent aseptic conditions observed in order to insure favorable results."

"In 1894 the death rate at Folsom was comparatively low. And this in the face of the fact that the courts continued their beneficent efforts in sending the consumptive criminals to Folsom to die. In nearly every case must this advice have been heeded, for we have been taxed to the utmost with the care and treatment of more diseased and debilitated humanity than any other like institution in the country."

1895: POPULATION, 1278

Dr. I. L. R. Mansfield, resident physician, reported to Warden Hale of San Quentin that "phthisis pulmonis has been, as heretofore, the principal cause of death. In nearly every instance, however, those who have died from this cause contracted the disease prior to their admission to the prison, and several were in the last stages when they entered the institution."

1902: POPULATION, 1407

Governor George C. Pardee was informed that "the California prisons are conducted on what is known as the congregate system, and nearly all the evils which our prisoners suffer are traceable to prison management. In San Quentin, we have nearly fifteen hundred convicts and only six hundred cells, necessitating the placing of five and six convicts in one cell, and, in one instance, forty-five in one of the larger rooms."

1904: POPULATION, 1495

Prisoners crowded together in this manner have ample opportunity to plot and scheme, and even commit felonies without detection. When inmates are in the upper yard, where they are forced to congregate on holidays and Sundays, the limited space makes it almost impossible for them to move about, much less obtain the exercise the physical condition of many of them demands.

Dr. P. F. Casey states that "the death rate from all causes has been small considering the population handled, being only thirty, including executions, in a population of over two thousand." He called attention to the large percentage of diseases of respiratory organs, about 50 per cent of the deaths that occurred having been from tuberculosis. Bad ventilation of the jute mill caused the air to be full of fine particles of dust, which injure the air passages, leaving a fertile field for the tubercle bacillus.

From 1904 to 1913 little was done for the betterment of the health of the inmates, although from 1909 on, an effort was made to perform necessary surgical operations. This was accomplished for the most part by visiting physicians, who rendered their services gratuitously. The surgical equipment was very crude, and comparatively little was done.

1913: POPULATION, 1910

My personal experience with San Quentin began in February, 1913, at which time I was appointed assistant resident physician.

At this time there were about twenty patients with active tuberculosis, treated, or rather, housed, in two small rooms on the top floor of the so-called "Old Hospital," which was built in 1859. The ventilation was abominable, the beds were crowded together, air space was extremely limited, a few old-fashioned windows, low and narrow, let in a very little light. The walls were of a dark hue, making the rooms cheerless and foreboding. Whites, Negroes, and Indians commingled here indiscriminately. The surroundings were extremely sordid. Here, crowded in abject misery, lacking the essentials for cure—light and air—were these diseased

prisoners, coughing, and too enfeebled for the most part, to leave their beds. To add to their discomfort, a dilapidated toilet and unsanitary bath were screened off in one corner by a shell of a partition, while in the center of the room a coal stove gave those men who were able the opportunity to cook the rations of eggs, or other food, they were allotted.

After my appointment as resident physician in August, 1913, free hand was given in hospital management and improvements. James A. Johnson, present warden at Alcatraz, became the warden at San Quentin in the same year. He understood the problem well and gave unbounded aid to the improvement of sanitary conditions.

Tuberculosis was the first problem attacked as its importance was greatest. A modern, open-air tuberculosis hospital was built on the flat roofs of three adjoining buildings. It covered forty-eight hundred square feet and was arranged in the form of two adjacent quadrangles with concrete floor and courts in the center. Surrounding these courts were sheltered wards enclosed by sliding windows on the outside and French doors on the inside. Every prisoner who showed any signs at all of tuberculosis was placed in this hospital. A system of physical examination on entrance was made, and in this way many cases which otherwise would not have been recognized were discovered and immediately hospitalized. A number of specialists, including Drs. G. R. Hubbell, now deceased, R. A. Peers, L. S. Mace and others, kindly offered their advice and suggestions for the care and treatment of these prisoners.

1915: POPULATION, 2286

Because of the good facilities for caring for tuberculosis at San Quentin, the Board of Prison Directors decided to send all afflicted prisoners from Folsom to this place for care and treatment. About forty were transferred during the following three years. The standard treatment of tuberculosis was employed, as were numerous additions such as pneumothorax, phrenicotomy, chest collapse, and other means of treatment.

1934: POPULATION, 6400

This year showed the peak of prison population making San Quentin Prison the largest penal institution in the world. An entirely new hospital was completed at this time. The fourth floor was converted into an open air tuberculosis hospital for the treatment of tuberculosis patients. At this time, with the population over six thousand, the number of tuberculosis patients was about forty, whereas in 1913, with a prison population of 1910, the number of patients afflicted with tuberculosis was over sixty.

1938: POPULATION, 5122

In addition to the very complete physical examination given to all prisoners entering San Quentin, an x-ray is taken of each man's chest. All patients are immediately hospitalized, if evidence of tuberculosis is found. The fact that in 1886 seventeen per thousand died of tuberculosis, and in 1937 only two per thousand, shows the general improvement in the treatment of this disease.

Medical Department, California State Prison.

REGIONAL ANESTHESIA AND THE ACUTE ABDOMEN*

By E. C. Moore, M. D.
Los Angeles

Discussion *by Thomas O. Burger, M. D., San Diego; Alanson Weeks, M. D., and G. D. Delprat, M. D., San Francisco.*

THE success or failure of any surgical procedure advocated for daily use must rest upon the clinical results obtained. The varying physical and psychic factors encountered in each patient make it impractical to handle all cases successfully in a routine manner. The selection of the anesthetic agent and method for each patient should be given the same consideration as the type of operation contemplated. In making this selection the safety and comfort of the patient, during and after the surgical procedure, must be given first consideration.

One of the primary requisites of good surgery is adequate exposure. This can best be obtained without unnecessary trauma when complete muscular relaxation is present. For practical purposes we have three types of regional block that are of value in abdominal surgery. These may be used alone or combined with light gas anesthesia, preferably cyclopropane, because of its potency and the high percentage of oxygen with which it can be used. The three procedures are subarachnoid block, peridural block, and abdominal field block.

One of the greatest handicaps regional anesthesia has had to overcome has been the enthusiastic adherents of its use who could see nothing good in any form of general anesthesia. On the other hand, many of the adherents of general anesthesia have been unable to convince themselves that regional anesthesia is of any benefit to the patient. The work of Crile and his theory of *anoci association* (?) is well established. With this in mind, we have tried to develop a satisfactory technique in handling our abdominal surgery which we feel offers the patient the greatest margin of safety during and after the operation.

In carrying out our regional procedures we do not object to those patients who desire it being asleep during the operative procedure. They are practically all willing to have a preliminary block when it is explained to them they can go to sleep before the operation is started. For upper abdominal work we prefer a combination of regional and general anesthesia, because of the nausea and discomfort that is practically always produced when traction is made on the liver or stomach.

PREOPERATIVE PREPARATION

Much can be done toward reducing the postoperative morbidity by proper preparation of the patient for surgery. In addition to the use of sufficient preliminary medication in the form of hypnotics and narcotics, it is frequently of benefit to give intravenous injections of glucose or normal saline, as may be indicated. Excessive or persistent

* Read before the General Surgery Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

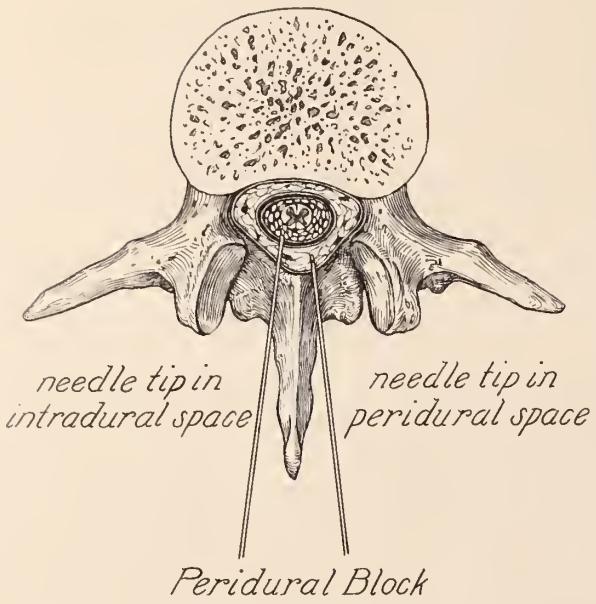


Fig. 1.—Peridural Block (after Odom, Am. J. Surg., December, 1936).

vomiting will usually produce an acidosis that will be greatly benefited by the administration of glucose. High intestinal obstruction will produce an alkalosis, with a reduction of the blood chlorids and an elevation of nonprotein nitrogen. This is benefited by intravenous injection of normal saline.* Careful attention to such details will prove of material aid in preventing or minimizing surgical shock.

PERIDURAL ANESTHESIA

Since the primary function of the blood is to carry oxygen to the tissues in the presence of a hemoglobin of less than seventy, any anesthetic that diminishes the oxygen supply may be unduly hazardous. Thalhimer states that "the administration of any of our usual inhalation anesthetics for a very short period may produce marked changes in the oxygen-carrying power of the blood, in addition to alterations in the erythrocyte count and hemoglobin content." High spinal anesthesia may reduce the tidal exchange by as much as 60 per cent due to paralysis of the muscles of respiration. This reduction is not so great with peridural block and can be more easily compensated by the administration of oxygen. For this reason, in the presence of a low hemoglobin we frequently chose peridural anesthesia in preference to spinal. Peridural anesthesia was first suggested by Corning about 1885. He did some caudals and then, instead of carrying out his original idea, became sidetracked on subarachnoid block. Fidel Pages in 1920 did some work on peridural and published his results. Soon thereafter he developed pneumonia and died, and the work he had started was not carried on. Dogliotti in the late twenties became interested in this type of anesthesia without having read of Page's work, and it is due to his efforts that this form of block has again been called to our attention.

* Thalhimer W. Laboratory aids in preparation and after care of surgical patients. Anes. and Anal., 7:30-33, (January) 1928.

Peridural anesthesia is similar in principle to caudal anesthesia. The anesthesia obtained is similar, and in reality is a bilateral paravertebral block. The epidural space extends from the foramen magnum to the sacral hiatus. The dura is continued as a covering for the spinal nerves which emerge through it until the nerves leave the intervertebral foramina. By injecting novocain into the peridural space it is possible to obtain a segmental anesthesia by the novocain making contact with the nerves outside the vertebral canal beyond the point they are protected by the dura. The muscular relaxation obtained with peridural block approximates that obtained with spinal anesthesia, and the danger of respiratory paralysis is eliminated, as it is impossible for the solution to reach the respiratory center.

For upper abdominal surgery, with the exception of perforated ulcers, a combination of peridural anesthesia and gas has proved most satisfactory. When this combined anesthesia is used, twenty-five cubic centimeters of 2 per cent novocain is injected, and the head of the table is lowered while the patient is being prepared for surgery. Cyclopropane is started immediately, and usually by the time the peritoneum is reached the injection has produced sufficient relaxation so that a very light stage of general anesthesia is sufficient. This eliminates much waste time, as the operation is started as soon as the patient can be prepared after the completion of the injection. Perforated ulcers do not need be combined with gas, as there is usually very little traction and pulling on the stomach.

ABDOMINAL FIELD BLOCK

The peritoneum of the anterior and posterior abdominal wall and the diaphragm, as far as it is supplied by spinal nerves, is sensitive to pain. The visceral peritoneum of the stomach, intestines, gall bladder, and liver does not possess sensory nerves reacting to the usual mechanical and thermic irritation, for the production of pain, touch, warmth and cold. These parts can then be crushed, cut or burned, without pain. Traction on the stomach, gall bladder or liver does cause pain. Ligation or clamping of the mesenteric vessels causes pain of varying degrees, depending on the sensitivity of the individual.†

† Local Anesthesia, Braun Shields, page 36.

TABLE 1.—*Regional Anesthesia and the Acute Abdomen*

	No. Cases	Hospital Deaths
Appendicitis, acute	21	..
Intestinal obstruction, acute		
Due to bands	9	1
Due to carcinoma	3	..
Due to pelvic abscess	1	..
Empyema of gall-bladder	5	..
Duodenal ulcer, acute perforated	1	..
Gunshot diaphragm, liver, spleen	1	..
Carcinoma Colon, Acute Perforated	1	..
Total	42	1

The usefulness of abdominal field block in view of this nerve supply is evidently quite limited. For the patient who is critically ill, or in extremis, on whom an abdominal exploration is indicated, it is of value. There is less danger of an untoward novocain reaction than with spinal or peridural anesthesia. If upon opening the abdomen an extensive operation is indicated, the novocain will furnish the necessary muscular relaxation, and a light stage of general anesthesia can be maintained to prevent any discomfort from the necessary traction and pulling on the abdominal viscera. This entire block will require from 100 to 150 cubic centimeters of 0.5 per cent novocain, and will produce complete anesthesia of the abdominal wall and peritoneum inside the area injected.

SPINAL ANESTHESIA

Reliable statistics indicate a mortality of from 1:1000 to 1:1100 in spinal anesthesia. We feel the reduction in surgical trauma and shock warrants assuming this increased anesthetic risk when spinal anesthesia is indicated. Indeed, it would be poor policy, as Sise states,‡ to save a fraction of 1 per cent anesthetic mortality, if this small saving entails an increase in surgical mortality of 1 per cent or more.

EXPOSURE IN ABDOMINAL SURGERY

It has often been stated that exposure is everything in abdominal surgery. This, of course, is a too all-inclusive statement, as there are many other factors in the pre- and postoperative care that lend their influence to the outcome of a given case. However, in acute intra-abdominal lesions requiring emergency surgery, nothing is so comforting to the operator as is the knowledge that his work is being done under direct vision, with a minimum of "blind dissection" as a result of bulky packs, bulging intestines, or semirelaxed muscles in the abdominal wall. With good exposure, a novice may succeed, where, if such an ideal situation were lacking, an expert may fail.

CRITERIA IN SURGICAL TECHNIQUE

In surgical technique as related to the acute abdomen, we subconsciously bear in mind certain criteria for successful treatment of the immediate lesion, and for the prevention of complications and sequelae. Every move and act is directed toward the achievement of these criteria. With satisfactory exposure, attained without trauma, such may be accomplished with comparative ease. Correction of the causative lesion is naturally of prime importance. Adequate hemostasis as an assurance against secondary hemorrhage is next uppermost in our minds. The prevention of peritonitis and, if already present, its spread, are definite obstacles to overcome in the surgery of many acute abdominal conditions. Dilated intestinal loops, as seen under general anesthesia with its associated respiratory heaving, materially contribute to the spread of infection. The occasional need of vigorous packing, for this reason, additionally lays the foundation for future

‡ Sise, L. F.: Choice of Anesthesia for Surgery of the Upper Abdomen, Amer. Jour. Surg., page 22, (April) 1938.

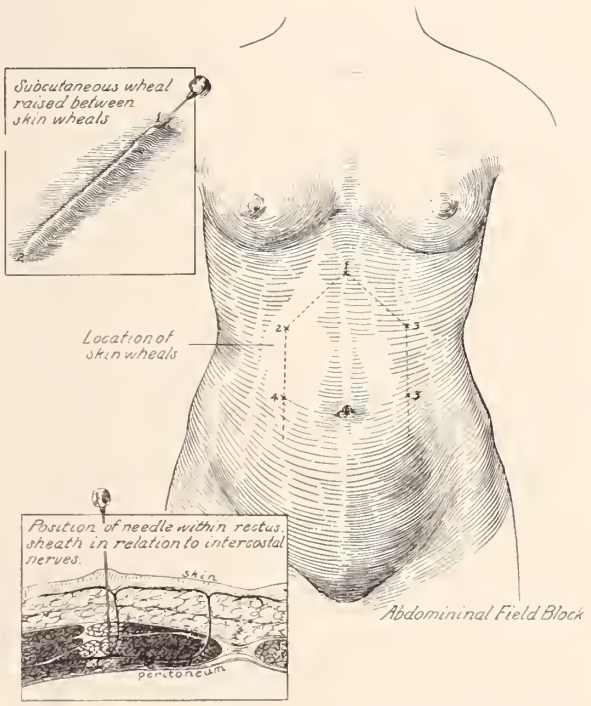


Fig. 2.—Abdominal field block (after Labat, "Regional Anesthesia").

bands and adhesions in the susceptible patient. Similarly, the pull of retractors in an attempt to overcome partially relaxed recti muscles injures the endothelial lining of the peritoneum, thus inviting future adherence to adjacent intestinal loops. Suture of the incision, particularly in the upper abdomen, may be a most difficult procedure in the presence of rigid recti muscles and respiratory heaving. Small transverse tears in the posterior sheath and peritoneum are often the forerunners of a wound disruption, requiring secondary closure with its added mortality rate; or possibly a deep wound separation, and later an embarrassing incisional hernia which another surgeon will probably repair.

Aids to good exposure, in addition to an adequate incision, include (1) muscular relaxation, (2) quiet respiration, and (3) a quiet gastrointestinal tract. These may all be had when spinal anesthesia or peridural block, either alone or in combination with light gas anesthesia, are administered by a skilled anesthetist, who is in constant attendance and may anticipate and forestall any untoward reactions. Few authorities refute the fact that relaxation is eminently more satisfactory in regional anesthesia. Uniform quiet respiration is the rule, and all of you have no doubt had occasion to compare the compact, contracted intestinal tract under spinal anesthesia with the toneless, air-filled loops of bowel which, under general anesthesia, annoyingly obstruct our line of vision and retreat only as a result of forced packing.

CLINICAL MATERIAL

In a gunshot case we were especially appreciative of the type of anesthesia, as it was necessary to repair a rent in the left dome of the diaphragm in addition to splenectomy, closure of stomach perforations, and packing a badly lacerated liver.

Of 1406 abdominal cases operated upon in the past three years, 147 were acute, requiring emergency surgery. In forty-two of this number, it was elected to administer some form of regional anesthesia.

It was noted that these patients were quiet and cooperative upon their return from the operating room. They perspired but little, thus conserving body fluids and decreasing the danger of chilling. Convalescence was usually smooth, with less tendency toward nausea and vomiting. Tympanitis appeared less frequent.

There were no complications, except for one hospital death. This occurred in an advanced intestinal obstruction of several days' duration, in which enterostomy was done. Three other patients died later at home. All of these were the result of inoperable carcinoma producing intestinal obstruction for which palliative procedures only were performed. Death occurred at six months, three months, and six weeks postoperative.

The judicial use of spinal or regional anesthesia has proved so satisfying in the acute abdomen that we extended its scope to include more and more elective cases. Indeed, during the past year general anesthesia was administered only to the occasional patient presenting an abdominal lesion.

SUMMARY AND CONCLUSIONS

1. In the absence of contraindications as regards age or the general condition of the patient, we believe some form of regional anesthesia, either alone or in combination with light gas, to be the anesthetic of choice in surgery of the acute abdomen.

2. Three types of regional block are of practical value in abdominal surgery. They are (1) subarachnoid block, (2) peridural block, and (3) abdominal field block.

3. Affording good exposure with a minimum of trauma due to retraction and packing, it renders more certain a smooth operation, and uneventful convalescence, and a lack of future sequelae.

511 South Bonnie Brae.

DISCUSSION

Thomas O. Burger, M. D. (2120 Fourth Avenue, San Diego).—Probably no part of a major operation is more important, as Doctor Moore so well points out, than the anesthetic. I emphatically agree with Doctor Moore that the choice of anesthetic must be as carefully individualized as any other part of the operation, if the patient's welfare is to be best served. In my practice I have been using spinal anesthesia increasingly for more than twelve years. During the past six or eight years subarachnoid block has become more and more the anesthetic of choice, particularly for work in the lower abdomen and pelvis.

Acute appendicitis and intestinal obstruction are diseases in which I feel that spinal anesthesia is almost mandatory, if the patient's condition does not otherwise contra-indicate. It is in these diseases, particularly, that collapse of the intestine and very quiet breathing (which this form of anesthesia promotes), are in such marked and favorable contrasts to the distended gut, heaving diaphragm, and rigid abdominal muscles which so trouble one when a general anesthetic is used. As any surgeon of experience knows, appendectomy is frequently as difficult an operation as one is called upon to perform. Pain and point-tenderness demonstrated in the right lower quadrant is no guarantee whatever that the appendix will be found lying free and easily available when the incision is made through the belly wall. As was pointed out in our study of a ten-year series of cases of acute appendicitis presented at this meeting, the appendix, in a good third of the cases, is retrocecal, pelvic, or presents some difficulty in its removal. It is in these difficult cases that the exposure afforded by subarachnoid block is so valuable; not to have to fight the mass of distended gut with packing and evisceration lessens shock and decreases the chance of spreading possible infection through the coils of the intestine, that are traumatized by packing or an unavoidable leak in removing a difficultly distended appendix.

Our series of spinals now numbers well over three thousand, with only one fatality. This occurred early in our use of the method, and we are quite convinced that the accident could have been avoided with our present technique. Although I have at hand no detailed figures, I am sure that the incidence of postoperative complications, particularly of the respiratory tract and infection, are distinctly less following spinal than after any form of inhalational anesthesia, including the newer gases. The only reactions which we have been able to attribute to the use of this form of anesthesia is a moderate fall in blood pressure, and mild-to-moderate nausea toward the close of the operation. This usually occurs only when peritoneum is put under tension. In no case in the past half-dozen years has the blood pressure of a patient fallen low enough to cause us alarm. The drop in pressure can usually be controlled by the timely administration of ephedrin.

The surgeon should not overlook the occasional value, as pointed out by Doctor Moore, of the use of regional field block. The patient whose vascular system is sclerotic, whose lungs are emphysematous, and whose blood pressure is perhaps markedly elevated, is a poor candidate for subarachnoid block. He is also a notably poor subject for general anesthesia, but if a surgical procedure in the abdomen is urgent, he will often do well with a local block supplemented, perhaps, as Doctor Moore suggests, with a minimum of one of the modern gases.

I do not believe that the direct mortality of spinal is greater when properly given and observed than any other anesthetic. In my own mind I am convinced that with the advantages enumerated above, fewer deaths will result following acute abdominal surgery than with any other type of anesthesia.

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Alanson Weeks, M. D., and G. D. Delprat, M. D. (384 Post Street, San Francisco).—Doctor Moore's presentation of regional anesthesia leaves little to add. He presents a series of 147 patients with acute abdominal conditions, of which forty-two were treated with some form of regional anesthesia. His description of the excellent character of the anesthesia leads one to ask why it was not used on more cases? There is, of course, no question but that spinal anesthesia, even for upper abdominal conditions, gives a type of relaxation that makes the operative procedure most comfortable for the surgeon. If the patient dislikes hearing the operating room noises, these can be eliminated by very light inhalation-gas anesthesia, which in itself would be quite inadequate for the relaxation otherwise obtained. We have long been convinced that the incidence of postoperative accidents, such as pneumonia, atelectasis, phlebitis, etc., is independent of the anesthetic agent. We have seen as many postoperative pneumonias, and acute collapse of the lung, develop in patients who were operated under novocaine anesthesia alone, as we have among those who were given ether inhalation. Apparently the question is not so much one of irritation of the bronchial tree as it is the later pain in the incision inhibiting the cough reflex in those patients who develop pulmonary complications. A definite factor that must be reckoned with in spinal anesthesia, however, is uncontrolled and unexpected persistent headache.

It has been our pratice to use local novocaine infiltration exclusively for the surgical repair of hernia. This, in a patient with a moderate preoperative medication, gives an excellent relaxation. This anesthesia, combined with the Joyce technique of repair, makes an inguinal hernioplasty as simple as the so-called injection method, and is, in our opinion, a thousand times more desirable.

GOITER: ITS CLINICAL MANAGEMENT*

By Mayo H. Soley, M.D.
San Francisco

Discussion *by H. Glenn Bell, M.D., San Francisco; Leon Goldman, M.D., San Francisco.*

THE geographical location of San Francisco, together with the advances in surgery of the thyroid gland made under the leadership of Dr. Wallace I. Terry, have been responsible for the growing thyroid clinic at the University of California Hospital. In the period of two years, from July 1, 1935 to June 20, 1937, we have had 212 patients who required thyroidectomy or x-ray treatment for goiter of various types. Thirty-seven hundred other patients were seen from 1912 to 1935. Our experience in handling these patients, and the opinions of leading students of diseases of the thyroid in this country, form the basis of the statements made in this paper.

CLASSIFICATION

In recent years the classification of goiter as given in Table 1 has been used in our thyroid clinic: This classification allows subdivisions which can include all the variations seen clinically. For example, in the group of nontoxic nodular goiter, such conditions may be included as degeneration, hemorrhage, calcification, tracheal displacement, recurrent laryngeal paresis or paralysis, and substernal or subclavicular extension. It should be stressed that the term "nodular goiter" is only a descriptive clinical diagnosis, and in no way identifies the pathological condition of the enlarged thyroid. The classifications of "toxic diffuse" and "toxic nodular" goiter have the advantage of including the intermediate types of toxic goiter (that is, intermediate between the syndrome of Graves [1] and that of Plummer [2]), in which a nodular goiter is accompanied by hyperthyroidism and exophthalmos.

* From the Department of Medicine of the University of California Medical School, San Francisco.

Read before the General Medicine Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

Table 1.—*Classification of Thyroid Disease*

1. Nontoxic diffuse goiter
 (Simple, endemic, colloid or iodin-deficiency goiter)
2. Nontoxic nodular goiter
3. Toxic goiter
 - Toxic diffuse goiter (exophthalmic goiter; Graves's, Parry's or Basedow's disease)
 - Toxic nodular goiter
 - Hyperthyroidism with coincident nodular goiter
 - Hyperthyroidism with pre-existing nodular goiter
4. Thyroiditis
 - Acute thyroiditis with or without suppuration
 - Chronic thyroiditis
 - Hashimoto's struma
 - Riedel's struma
5. Neoplasms of the thyroid
 - Benign
 - Papillary adenomas
 - ? Fetal adenomas
 - Malignant
 - Carcinomata
 - Lymphosarcomata
 - Sarcomata
6. Anomalies of the thyroid
 - Thyroglossal tract remnants
 - Aberrant thyroid tissue
7. Hypothyroid states
 - Cretinism
 - Juvenile myxedema
 - Adult myxedema
 - Cachexia strumipriva
 - Hypothyroidism

Table 2.—*Relative Incidence of Types of Thyroid Disease in Boston and San Francisco*

	University of California Hospital July 1, 1935, to June 30, 1937		M.G.H. 1927–1936*
Surgically treated:	Number of Cases	Per Cent of Total	Per Cent
Nontoxic diffuse goiter	1	0.47	
Nontoxic nodular goiter	78	36.79	32.5
Toxic goiter Diffuse 63 cases, 29.71 per cent Nodular 26 cases, 12.26 per cent	89	41.98	32.7
Thyroiditis	8	3.77	1.1
Carcinoma	6	2.83	1.7
Treated with x-ray			
Toxic goiter Diffuse 26 cases, 12.26 per cent Nodular 4 cases, 1.88 per cent	30	14.15	
Total	212	99.99	

* From James H. Means: Thyroid and Its Diseases. J. P. Lippincott Company, Philadelphia, 1937.

Table 2 gives the relative incidence of the various types of goiter seen in our clinic, and in the clinic of Dr. James H. Means at the Massachusetts General Hospital in Boston. The only significant differences in the percentages are accounted for by the facts that we have not included patients with simple goiter, and that we have had more cases of thyroiditis and carcinoma.

NONTOXIC DIFFUSE GOITER

Nontoxic diffuse goiter (simple or colloid goiter) is seen not infrequently in San Francisco, although this is not an endemic region. In adolescents, small doses of iodin often reduce the size of the thyroid, and certainly eliminate the iodin deficiency which caused the initial enlargement. It has been estimated that the daily iodin requirement is from 20 [3] to 75 [4] gammas, and is greater in adolescence and during pregnancy. Since one drop of Lugol's solution (Liquor Iodi Compositus, U. S. P.) contains 7.8 milligrams of iodin, a single drop of iodin a week should suffice as prophylaxis or treatment. In this country the danger of causing "Iod-Basedow" has been exaggerated, but a dose of one drop of Lugol's solution per week should not worry even those clinicians who feel that this condition is a common one. Since iodized salt is rather generally used in California, the iodin deficiency producing the majority of endemic goiters must be relative rather than absolute. If small doses of

TABLE 3.—*X-ray Therapy of Hyperthyroidism*

Thyroid Clinic, University of California Hospital
July 1, 1935, to June 30, 1937

	Number of Cases	Total Number of Cases
Toxic diffuse goiter:		
Patients treated (7 of these for postoperative recurrences)		26
	Number of Cases	
Hyperthyroidism "cured"	17	
Status questionable (inadequate follow-up)	3	
Persistent hyperthyroidism	1	
Recurrence	1	
Patients subsequently operated on	4	
	Number of Cases	
Reasons:		
X-ray burn	1	
Domestic conditions	1	
Recurrence	1	
Intentionally treated preoperatively	1	
Toxic nodular goiter:		
Patients treated		4
	Number of Cases	
Hyperthyroidism "cured"	3	
Minimal but definite residual symptoms	1	
		30

Eleven of these thirty patients received Lugol's solution at some time during their course of treatment.

iodin, given over a period of several months, fail to reduce the size of a diffusely enlarged, nontoxic goiter which is producing pressure symptoms, then a subtotal thyroidectomy should be done. However, in our experience over two years, only one such goiter was removed, and that because the case was erroneously diagnosed. Unless the isthmus is especially enlarged or the gland has reached a size of over 40 grams, there are usually no pressure symptoms which necessitate thyroidectomy. During pregnancy all women in this section of California should receive small amounts of iodin or thyroid substance, or both, unless there is a specific contra-indication. Since Marine and Lenhart's [5] experiments showed that the puppies of iodin-deficient dogs may be goitrous at birth, we have considered it important to give iodin to women with nontoxic diffuse goiters during pregnancy. Thus we protect both the mother and the fetus by this simple procedure.

LIMITATION OF THE NONTOXIC GROUP

The group of patients suffering from nontoxic nodular goiters is a selected one, in the sense that no patients are included who had carcinomas of the thyroid. In general such patients have had goiters for many years, and usually present themselves with one or more symptoms resulting from pressure on structures in the neck or in the upper mediastinum. A few patients have goiters as large as that shown in a slide to be thrown upon the screen.

In these patients the thyroid should be removed to relieve the pressure symptoms and for cosmetic purposes, leaving as much normal tissue as possible. Most of these patients have much greater comfort postoperatively than one might expect, presumably because their symptoms, which have increased gradually over months or years, are suddenly and dramatically relieved following thyroidectomy. Occasionally one must expect such complications as recurrent laryngeal palsies and cachexia strumipriva. In some of these cases nearly all of the thyroid must be removed, and it is sometimes impossible to avoid injury to the recurrent laryngeal nerve. In the seventy-eight cases listed in Table 2, five patients had recurrent laryngeal palsies, one postoperative myxedema, and six postoperative hypothyroidism. It should be mentioned that some of these patients have hypothyroidism when they first present themselves for treatment. The disability from nerve palsies decreases with time, and the hypothyroidism can be satisfactorily treated by administering thyroid substance. If a nodule in the thyroid is increasing in size, a thyroidectomy should be done as soon as possible, since one cannot tell from physical signs or roentgenograms whether cyst formation, hemorrhage or a malignant tumor is responsible. Most clinicians interested in diseases of the thyroid are of the opinion that iodin has little effect on nontoxic nodular goiters, and indeed feel that it is distinctly dangerous to give these patients iodin since hyperthyroidism may be induced. Only a few cases of this latter type have been reported, and I feel that the appearance of the hyperthyroidism is only coincidental with iodin administration rather than the result of it.

TOXIC DIFFUSE GOITER

The etiology of toxic diffuse goiter (Graves's disease) is not known and the treatment, therefore, is empirical. One might say that in no other disease has empirical treatment been so successful. All forms of therapy have, as their final aim, the reduction in the amount of overactivity of the thyroid gland, so that the patient's metabolism falls to normal or low normal levels. This may be done with iodin, subtotal thyroidectomy or x-ray treatment. Iodin does not stop the course of the disease, and should be used mainly as one of the preoperative procedures that will put the patient into the best possible physical condition. Subtotal thyroidectomy, following ten to thirty or more days of preparation with iodin, bed rest, sedatives and a high-caloric, high-carbohydrate diet, is still the treatment of choice for the majority of patients suffering from this disease. X-ray therapy has just as good results in selected patients, but requires a longer time so that the "breadwinner" of a family is seldom chosen. However, those patients with Graves's disease of moderate severity who have no visceral complications, such as mitral stenosis, who can rest part of each day, and who do not live far from the hospital in which they are being treated, can be selected justly for x-ray therapy. Iodin may or may not be prescribed according to the need of the individual patient. General measures which

help the patient to lead a normal life should not be neglected. The equivocal results from x-ray in the past are due to the fact that insufficient x-ray therapy was given and that, therefore, no more could be expected, for instance, than from a hemithyroidectomy. Time precludes any discussion of other forms of therapy for toxic diffuse goiter.

TOXIC NODULAR GOITER

The etiology of toxic nodular goiter, like that of Graves's disease, remains undetermined. For practical purposes subtotal thyroidectomy, after the preparation outlined in the discussion of toxic diffuse goiter, is the best treatment. One cannot tell whether the surrounding glandular tissues or the nodules cause the hyperthyroidism, so that enucleation of the nodules alone is not a rational procedure. We have seen five patients in whom enucleation of the nodules was followed by recurrence of the symptoms of hyperthyroidism associated with the eye signs of Graves's disease, which had not been present during earlier episodes. We believe iodin should be used because one cannot tell whether the nodules or the surrounding gland are responsible. We feel that postoperative complications, such as crises, may thus be avoided. In general, patients with toxic nodular goiter are older and, therefore, more of them have cardiac conditions which also require treatment. The general measures used in the treatment of Graves's disease should be employed also.

The treatment of the overactivity of the thyroid is only part of the regimen that should be outlined for the patient with hyperthyroidism. Stimulants should be avoided, excesses of all kinds should be discouraged, and anxieties should be investigated and either eliminated or treated whenever possible. These measures lessen the number of recurrences.

Iodin is the best medicine for the heart in hyperthyroidism. Digitalis may be used for congestive failure or when it is feared that congestive failure will develop. Auricular fibrillation usually is converted to a normal rhythm after the hyperthyroidism is treated. Quinidin may be given postoperatively in stubborn cases.

The length of time that administration of iodin should be continued postoperatively depends on the type of subtotal thyroidectomy. If a radical subtotal thyroidectomy is done, iodin should be withdrawn in ten days to two weeks following operation. If about 85 per cent of the gland is removed, iodin should be given for six to twelve weeks.

Recurrences are less likely to occur following radical subtotal thyroidectomy. Some surgeons prefer to do a radical operation initially, and then give the patient thyroid substance if he develops hypothyroidism. Other surgeons feel that it is easier to treat recurrence with x-ray or with a second operation. Either method seems reasonable, provided the internist knows which type of thyroidectomy is done and can be prepared to stop iodin or give thyroid, as the case may be. It should be remembered that all well-treated patients have a relative hypothyroidism for six to twelve weeks following operation, and that it is advisable to watch the patient rather than to prescribe thyroid immediately.

THYROIDITIS

In our patients the thyroiditis was the type described by Riedel [6] or that described by Hashimoto,[7] rather than acute thyroiditis with suppuration. The treatment for this type of thyroiditis is usually partial thyroidectomy since it is almost impossible to make the diagnosis clinically. More of the gland should be left *in situ* than in Graves's disease, because there is a tendency to hypothyroidism. Some surgeons merely split the isthmus of the gland to prevent constriction of the trachea and allow nature to do the rest.

CARCINOMA OF THE THYROID

Carcinoma of the thyroid is best treated with the combination of x-ray therapy and surgery. Some patients survive ten years or longer, but any treatment is only palliative. Since it is thought that papillary adenomas frequently become malignant, and since so many aberrant thyroids have the histological picture of papillary adenoma, all aberrant thyroid tissue that is recognized should be removed.

SUMMARY

The treatment of simple goiter should begin during fetal life by administration of small doses of iodin to pregnant women who live in endemic goiter regions.

All methods of treatment of goiter with hyperthyroidism aim at decreasing the overactivity of the thyroid gland. Iodin does not cure hyperthyroidism. Even though iodin is administered continually, the disease is not arrested, but the severity of the hyperthyroidism is lessened. Subtotal thyroidectomy is the treatment of choice in most cases of toxic diffuse and toxic nodular goiter. X-ray therapy in adequate dosage is equally successful in selected cases of toxic diffuse goiter.

Nontoxic nodular goiters should be removed surgically to relieve pressure symptoms, to avert the danger of malignant tumors, and for cosmetic reasons.

University of California Hospital.

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DISCUSSION

H. Glenn Bell, M. D. (University of California Hospital, San Francisco).—Doctor Soley's paper illustrates how much may be learned from a careful study of all patients treated either by surgery or x-ray therapy. I feel that it is always wise to have an internist check the surgical results, not only immediately after surgery, but after several years. The close coöperation of Doctor Soley and the Thyroid Committee with the surgical staff has been of great value in the care of patients with disease of the thyroid gland.

I am firmly convinced that, in treating hyperplasias, a radical subtotal thyroidectomy should be done, leaving perhaps from seven to eight grams of thyroid tissue. Unless one actually has measured and weighed thyroid tissue, however, it will be impossible to estimate the amount of thyroid tissue remaining. It is easier to treat, or to have the internist treat, a mild hypothyroid condition than it is to treat a recurrence or a continuation of the disease. In doing a radical subtotal thyroidectomy the greatest care must, of course, be exercised to prevent injury to the recurrent nerves or the parathyroid bodies.

I agree with Doctor Soley's remarks regarding malignancy of the thyroid gland, especially those relative to aberrant thyroid tissue.

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Leon Goldman, M. D. (University of California Medical School, San Francisco).—Doctor Soley has given an excellent, concise summary of the management of patients with goiter. This subject is such a wide one that it would be impossible for anyone to discuss all the problems covered in the paper.

I should like to say a word about the poor risk goiter patient for, by the recognition of certain factors, we may be able to keep the operative mortality down to a minimum. There are two general reasons for this mortality: one, the prolonged medical treatment with iodin and x-ray, and the other, our tendency to underestimate the patient's condition. The former is obviated by close coöperation between the surgeon and the internist. It is important that the surgeon should see the patient before iodin therapy is started in order to estimate his condition and the operative risk accurately, rather than after the symptoms have been masked by this treatment. Most patients who develop a thyroid crisis after operation have taken Lugol's solution over periods of months or even years. They have become refractory to further iodin therapy, so that we lose the effect of this drug in preparing these patients for surgery.

As a rule, if a patient dies within two or three days following thyroidectomy, we may assume that we have erred in the selection of the time for operation and have underestimated the patient's status. The factors which guide us in selecting the date for surgery are: age, sex, the condition of the cardiovascular system, nutrition, nervous system stimulation, gastro-intestinal manifestations and the basal metabolic rate. A consideration of these factors may enable us to recognize certain danger signals. Patients over forty years of age are poorer risks than those who are younger. The toxic male patient is a more serious problem than the female patient. Those patients who border on myocardial decompensation should receive digitalis before surgery to prevent myocardial failure during the postoperative period. Loss of weight under treatment is an important prognostic sign. Those patients whose nervousness and cerebral excitation are not controlled suggest that they are poor operative risks. Vomiting, diarrhea or rising metabolic rate, or a metabolic rate above forty should cause one to proceed with caution. In addition, it is important to evaluate renal and hepatic functions in the poor risk cases.

It is our experience that doing subtotal thyroidectomy in this type of case presages a smoother postoperative course than stage-operations, if the patient is properly prepared and the time of operation is wisely selected.

HYPOGLYCEMIA: IN RELATION TO THE ANXIETY STATES AND THE DEGENERATIVE DISEASES*

By John F. Quinlan, M.D.
San Francisco

Discussion *by Alfred C. Reed, M. D., San Francisco; I. W. Thorne, M. D., San Francisco.*

THE problem of medicine, in the face of a cumulatively aging population, is the degenerative diseases. Only in their prevention, or the treatment of them in their incipiency, is much to be expected. Consequently, if the modern trend toward prophylactic medicine and the vogue of periodic examinations is to have much value, greater stress must be laid upon anatomically incorrelatable complaints.

Cancer, hypertrophic arthritis, and noninfectious cardio-vasculo-renal disease are the conditions for which we seek the causes and means of prevention. The various estrogens are the only physiologic carcinogenic substances known. The presence of degenerative arthritis is contingent upon the nutrition of the joint structures which, in turn, is dependent upon vascular permeability. Vascular impermeability is a result of sclerosis; sclerosis follows the deposition of cholesterol;[1] cholesterol is the mother-substance of the estrogens,[2] to which it bears a reciprocal relation. Personal observation in a few cases has shown it to be increased in ovarian follicular deficiencies. It has been found to be increased in involutional melancholia, and the arthritis and hypertension of the menopause, in which conditions the hormone has been found to be, respectively, curative and palliative. Cholesterol is a tissue proliferant,[3] and its reduction has been observed as an effect simultaneous with the reduction of leukocytes and the size of organs following x-ray therapy.[4] Overfeeding with dextrose, in mice, has reduced the malignancy of tar tumors (tar is comparable to cholesterol in its chemical structure†), and their tendencies to metastasize.[5]

* To Dr. Alfred C. Reed, my thanks for his numerous suggestions.

† The carcinogens, *inclusively*, are characterized by a distinctive unity. They are aliphatic and aromatic hydrocarbons, *i. e.*, they are derived from fat and characterized chemically by the benzene ring. They are component substances of living animal or vegetable tissue or decadent (fossil) vegetation—coal and oil—cholesterol of animal tissue, ergosterol (theelin has been synthesized from it) and the other phytosterols of plants, phenanthrene and its various modifications from coal and oil. The "cracking" by which the various carcinogens (tar, paraffin, dyestuffs, antipyrine, benzene, etc.) are obtained from the parent substances is essentially the same as that by which cholesterol is decomposed (combusted) in the body to produce the various sex hormones and, more likely than not, other yet undiscovered tissue proliferants. These processes, the destructive distillation of coal, the fractional distillation of oil, and the catabolism of cholesterol, are effected by the application of heat. Cholesterol, therefore, in the human body, is the focal point in our search for release from the dread diseases of the aged. With this in mind, noting also the endocrine control of metabolism, the occasional cures or dissolutions of cancerous growths in high oxygen tensions, by Coley's fluid or the various endocrine extracts, becomes explicable. Further, it must be realized that, since there are no ovarian follicles in the male or seminephrous tubules in the female, even though female hormones are found in the one and male hormones in the other, the gonads cannot be considered to play an essential part in their synthesis.

Nor need we labor long over the fact that products of protein decomposition (catabolism) are also carcinogenic. Essentially protein is carbohydrate and fat; and it is from the "fat" fraction that they are derived—from a few amino-acids possessing the benzene ring, trypophane, tyrosin, phenylalanin.

TABLE 1.—*Periodic Glucose "Tolerance" Determination*

Cases	Glucose Tolerance	Fasting	One-half Hour	One Hour	Two Hours	Three Hours	Interval Weeks
1	Before treatment	40.0					
	After treatment	115.0	140.0	145.0	(One hour two-dose test)		18
2	Before treatment	71.0	75.0	73.0	72.0	67.0	
	After treatment	91.0	91.0	133.0	111.0	95.0	113
3	Before treatment	110.0	100.0	105.0	109.0		
	During treatment	120.0	60.0	35.0	(One hour two-dose test)		6
4	Before treatment	95.0	90.0	130.0	90.0		
	Without treatment	53.0	75.0	90.2	83.5	60.0	130

It has been shown also that, even under the intense stimulation of dinitrophenol, the body does not lose weight-fats, lipoids in general, of which cholesterol is one, are not catabolized, unless a supply of glucose is available.[6] Cholesterol is not synthesized in the body or only minimally, if at all.[7] That which is in excess of what is necessary for normal tissue structure is either excreted unchanged or, as bile acids, or catabolized with and by the carbohydrates under adequate hormonal (thyroxin) stimulation to CO_2 and H_2O. The estrogens, and the androgens also, are only gradation products in the course of its destruction. The significance of the glycemic level and the factors influencing it, therefore, assumes vastly increased importance.

MANIFESTATIONS OF HYPOGLYCEMIA

The manifestations of hypoglycemia are those of hyperinsulinism.[8] Depending on the patient's glycogen balance, an overdose of insulin may produce headache, "emptiness" in the stomach or gnawing hunger pains, listlessness, faintness, mental torpor or drowsiness, languor or extreme weakness, visual disturbances, profuse sweating, and unconsciousness. Hypoglycemia, therefore, should be accompanied by symptoms which are the manifestations of earlier or lesser reactions to insulin overdosage: headache, hunger pains, listlessness, drowsiness, fatiguability, fragmented vision, vertigo, and sweating. For a clearer comprehension of the various symptoms and their sequence, I have gone to my work fasting from 6 p. m. the previous day, on numerous occasions, with the following results: headache beginning about 10 a. m., becoming worse as the day wore on, often uncontrollable by the noon meal, strong coffee, or 30 to 40 grains of aspirin in the course of an afternoon, and seeming to disappear only after the evening meal, an incapacity for reading, listlessness toward routine activities, and drowsiness. On one occasion, one hour after breakfast, my glycemic level was 105 milligrams.

Formerly we had been taught that the normal fasting glycemic level ranged between 80 and 120 milligrams per cent.[9] Now the minimal level has been set at 100 milligrams per cent,[8] and this seems to be borne out by the many complaints that accompany a glycemic level at the lower figure. In the following group of cases, when usual procedures failed to account for such a wide variety of symptoms as dizziness and fatigue, diurnal somnolence, weakness and anorexia, nervousness ("shivers") and shortwindedness, glucose tolerance tests were resorted to with gratifying results.

It will be noticed that there is no tolerance test for Case 1 preceding the dietary regimen. The patient's condition had become so extreme that she could not stomach the glucose. When given it, she vomited and almost collapsed from the effort.

Curves of Cases 2 and 3 are abnormal in that they are flat—they show no response to the ingestion of glucose. In Case 3, even though the fasting level is normal, as it is practically so in Case 4, the absence of the normal increase in the glycemic level, following ingestion, must be interpreted as hypoglycemic. Case 4 is hypoglycemic in that the response is long delayed and ill-sustained. The second "before treatment" test was made following a lapse of more than two years, during which time her symptoms had been continuous but variable in their severity.

REPORT OF CASES

CASE 1.—A fair-complexioned woman of twenty-five years, sthenic proportions and medium height, underweight, anxious but coöperative, who had been under my care periodically for four years, chiefly for undernutrition. When first seen for the condition relative to our study, her complaints were: nervousness ("shivers"), weakness, and shortwindedness. Her temperature was 98.6, pulse 120, respiration 12, blood pressure 120/70, weight 107 pounds. She was placed on Lugol's solution, phenobarbital, and frequent small feedings of glucose. In the course of a week her condition had become worse, with additional symptoms of marked listlessness, dizziness, heaviness of the eyes, and continual yawning. She menstruated four to five days in a twenty-eight-day cycle. The flow was moderate in amount and was neither preceded nor accompanied by discomfort. Excessive hairiness was the only abnormality noted on physical examination; pulse 100, blood pressure 110/60, weight 107 pounds. Lugol's and phenobarbital were discontinued. Two days later there was postcibal vomiting, followed by epigastric soreness. At this time her glycemia was 40 milligrams per cent; blood count normal, except for moderate neutrophilic leukocytosis; basal metabolism minus thirteen. There was slight improvement during the following week on frequent feedings of cream only, in addition to her regular meals; pulse 95, blood pressure 130/60, weight 108 pounds. The following two weeks on thyroid there was moderate improvement in symptoms, though languor continued. Her menses was scantier than usual; pulse 90, blood pressure 120/60, weight 112 pounds. The next month thyroid was replaced by theelin, with marked results. Menses was still subnormal; pulse 80, blood pressure 130/60, weight 115 pounds. Cream, as additional feeding, was discontinued, and theelin replaced by amniotin. Improvement continued during the next two months; pulse 75, blood pressure 120/60, weight 119 pounds; glucose tolerance, fasting 115 milligrams, one-half hour 140 milligrams, one hour 145 milligrams (one hour two-dose test).

On one occasion, when not accompanied by her mother, to a question previously put but not answered, she replied

that for several months before coming she had been worrying over an unmarried sister who had become pregnant, fearing that their mother would be informed of it. At the time, several months after an abortion had been procured, she was still worried for the same reason.

Comment.—This patient has all the criteria for a diagnosis of anorexia nervosa, with an aversion for food, hairiness, progressive oligomenorrhea, undernutrition, and a low basal metabolism,[10] together with hypoglycemia, which, to my knowledge, has not been observed as a feature of this condition, and the anxiety state upon which the train of symptoms is based. The gradual subsidence of the patient's fears, with the passage of time, may have been as/or more effective in curing her condition as any remedy prescribed.

* * *

Case 2.—A stocky, obese, congenial male of medium height, age thirty-five, whose complaints were: dizziness and faintness ("all-gone feeling") which had been present for three years, but which had become very aggravated during the past three months. He had an excessive thirst and polyuria, and felt under a nervous tension all the time. His illness fluctuated with his social conditions, being aggravated according to the degree of insecurity. Three months back, he lost his job: earlier, he had taken "cuts," had lost a child, as well as borne with his father's unemployment.

He was five feet six inches, weighed 178 pounds; tonsils injected, many dental fillings, liver three fingers-breadth below the costal margin, skin brawny and scaly, hands chubby; pulse 95, blood pressure 130/100; Wassermann negative; urine and blood count normal; basal metabolism minus 17; glucose tolerance, fasting 71, one-half hour 75 (glycosuria), one hour 73, two hours 72, three hours 67.

The following two weeks on thyroid and digitalis effected slight improvement; pulse 95, blood pressure 110/70, weight 176 pounds. A week later he was worse: "dazed"—most pronounced when hungry and most often in the morning. He perspired more freely. Thyroid was decreased, and he was advised to eat lightly but more frequently, particularly of the coarser carbohydrates. He was given a digestive mixture. The following month there was marked improvement, which was most noticeable after pleasure trips. The skin was less brawny, pulse 85, weight 179 pounds. Symptoms were aggravated on withdrawing the digestive mixture (takadiastase, atropin, ox bile). In the following month his father died, all symptoms returning in a more aggravated form, together with nausea and vomiting, and ureteral and biliary colics and hematuria. Gallbladder and pyelographic studies were normal. During the next four months, without change of regimen, there was continuous improvement, except for palpitation; pulse 115, weight 177 pounds. Six weeks later there were no complaints; pulse 90, weight 181 pounds.

He returned again eighteen months later, complaining of palpitation, lethargy, and constipation; pulse 95, blood pressure 140/100, basal metabolism plus 15, glucose tolerance, fasting 91, one-half hour 91, one hour 133, two hours 111, three hours 95.

Comment.—Though, in the patient's physique—stockiness, obesity, spade hands, brawny skin, and palpable liver—there is evidence of dysfunction independent of the phase of his illness which concerns us here, it is quite obvious that an anxiety state conditioned much of his illness. And it is evident that release from it was coincidental with a sense of well-being. It is significant that two years after the occurrence of his reverses, during which time had its calming effect, his basal metabolism and glucose tolerance, to a degree, had returned to normal even though the symptoms were similar to the original ones. As the patient did not return for further treatment, the presumption is permissible that they were transitory.

Case 3.—A tall, slender, undernourished, fair-complexioned, brusquely affable woman, whose complaints were weakness and anorexia. Two years earlier the patient had similar complaints, with anemia. Her diet was deficient. Her menses followed a five-day course in a cycle of twenty-eight days. They were scanty and accompanied by slight pain. Aside from a general pallor, the physical examination was normal; height five feet seven inches, weight 132 pounds, pulse 90, blood pressure 110/70. Laboratory: Gastric analysis 10 degrees HCl at ninety minutes; blood count—color index 0.8, hemoglobin 61 (Sahli), erythrocytes 3,500,000, with slight acromia, anisocytosis, and poikylocytosis; leukocytes normal.

For two months she was given lextron, six capsules daily, and a weekly injection of 3.0 cubic centimeters of liver extract with negligible results; color index 0.9, hemoglobin 75, erythrocytes 3,500,000, with no change in the character of the cells; weight 139 pounds.

Recollecting that the patient when first seen, was in a hysterical collapse, occasioned by her husband's late and rather ebullient return from the "fights," that his income was contracted, and that it was a matter of much worry for her, the possibility of a chronic hypoglycemic state was considered: fasting 110, one-half hour 100, one hour 100, two hours 109; there was active diuresis.

Lextron was replaced by iron-ammonium-citrate, and she was advised to eat frequent small feedings, particularly of carbohydrate. Two months later the glucose tolerance was: fasting 120, one-half hour 60, one hour 35. There was diuresis. Blood count: Color index 0.9, hemoglobin 80, erythrocytes 4,000,000, with little change in the character of the cells.

A week later she complained of heartburn and weakness on rising, stating that they were present for three weeks, and that she had been troubled with them for the past three years. During the following two months, on a digestive mixture, there was a decided improvement. Then tiredness recurred at her menses.

Comment.—The emotional state, deranging the normal gastro-intestinal functions of motility, secretion, digestion, and absorption,[11] was partially offset by supplying the deficiency in the form of a digestive mixture: atropin, which produces muscular relaxation and inhibition of secretion of the stomach and pancreas;[12] takadiastase, a digestant of starch; and ox bile, chalagogue and choleretic stimulant of hepatic secretions, as well as emulsifier of fats. Glucose was absorbed as diuresis followed its ingestion. It is probable that the immediate absorption of glucose, inducing a simultaneous discharge of insulin,[13] effected its rapid conversion to glycogen in a body depleted of its reserve.

* * *

Case 4.—A tall, slender, fairly well-nourished, pleasant girl of twenty years, whose chief complaint was uncontrollable diurnal somnolence.

Her illness began a year earlier, progressing slowly, accompanied only by an occasional headache. There were no other mental symptoms until shortly before her first visit, when drowsiness affected her. It would come without premonition at any time. Occasionally, under emotional strain, she was overcome by a general weakness in which she was unable to sustain her own weight. She said she was "likely to slump away and, upon recovery shortly after, find herself sitting down." Menses followed a four- to five-day course in a cycle of thirty days; the flow was moderate, without distress.

Following graduation from school, she found it difficult to gain employment; and as she was an orphan, under the best of circumstances felt the sting of a social handicap.

Physical examination was normal, but for slight undernutrition; pulse 95, blood pressure 120/70, weight 130 pounds, height five feet nine inches; laboratory tests, including blood count, urinalysis, and Wassermann, were normal; basal metabolism, minus 7.

During the next thirteen months, though her somnolence had been continuous, no relief was sought. An impacted molar was removed. A year later her glucose tolerance

was: fasting 95, one-half hour 90, one hour 130, two hours 90; erythrocytes 4,100,000, hemoglobin 77, leukocytes, 7,700, with a normal differential.

The response to frequent small feedings of dextrose, together with increased intake at regular meal times, was excellent. It continued for two months, when a recession set in. She had become disgruntled over her circumstances, which she was finding impossible to improve.

There was a lapse of sixteen months, when she again appeared with much the same complaints, even though her environmental adjustment had become satisfactory. She had not followed instructions during the time. A glucose tolerance then showed: fasting 53, one-half hour 75, one hour 90.2, two hours 83.5, three hours 60; basal metabolism, plus 26.

Comment.—If the psychic element at play is not anxiety, at least, there is the consciousness of frustrated effort or ambition which was not a passing whim, but a long-continued attitude.

MOST FREQUENT CAUSE OF HYPOGLYCEMIA

An oversupply of insulin, the hormone which controls the conversion of glucose into glycogen,[13] is obviously the most direct though not necessarily the most frequent cause of hypoglycemia. In the absence of anatomic pathology in the islets of Langerhans or in the glands having a symbiotic relation, such a conclusion can be only provisional. The complex interplay of the endocrine glands renders it extremely unwise to attribute to any one of them a particular effect except where tests, such as there are for the follicular hormone, demonstrate its preponderant influence. The glucose tolerance test, though a test of insulin activity, is not specific as a test for an excess or lack of that hormone. Nor is the determination of the fasting blood level an adequate index of normality. The status of the body's cells with relation to rest and activity [9,13] determines whether or not they will be resistant to its influence, insulin being more effective when the pH of the tissues and, consequently, the blood is high, *i. e.,* inclines to alkalosis, as in repose, depressed states, and hyperventilation, an equivalent of alkalosis in physiological terminology. Conversely, the cells are more resistant in states of relative acidosis, conditions characterized by a lower pH, such as muscular activity, or long-continued fasting or fevers. Likewise, as cellular activity is dependent upon thermal conditions, heat, by depressing the body's functions, will account for hypoglycemia. It may rest upon such a simple matter as a deficiency of glycogen, a consequence of faulty dietary habits. But more directly than any other factor a hypoglycemic state is conditioned by the mental attitude or emotional status, as by apathy or anxiety.

SECONDARY CAUSES

Secondary, or dependent causes, resultants of the effect of the mental or emotional disequilibrium on physiological processes, may be: direct, through the autonomic innervation of the gastro-intestinal tract,[10,14] affecting adversely its various functions of secretion, motility, and absorption; indirect, through dyspituitarism.[14] This may express itself either through the secretions of its posterior lobe affecting adversely the motility of the intestine, or through the altered trophic action of the secretions of the anterior lobe disturbing the synergism of the endocrine system. The dystrophic effect through the thyroid, by lowering its secretion, would be to lessen cellular activity and, therefore, the need of glucose and the quantity of glycogen necessary to be mobilized. The adrenal cortex controls the retention of sodium chlorid.[15] By its osmotic attraction the supply of water, the medium necessary for the "oxidative" processes, is regulated. A dyssynergic deficiency effects simultaneously a lower concentration of sodium chlorid and water, and consequentially, that of the other electrolytes, among them glucose. The adrenal medulla controls the hydration of glycogen (glycogenolysis). Its deficiency effects a fixation of glycogen which results in a lowered concentration of glucose. Follicular hormone enhances the action of insulin, the dehydration of glucose, or stimulates the islet cells to increased production. Its hypersecretion, by complementing the action of insulin in immobilizing glucose or, conversely, by interfering with the mobilization of glycogen, lowers cellular metabolism. The supply of available glucose for the adequate reduction of the other combustible substances, proteins and lipoids, being thereby adversely affected, cholesterol and the various gradation products in the course of its destruction, accumulate in excess. On the vascular tree they produce, by irritation, spasm (hypertension) and/or hyperplasia-arteriosclerosis.[16] Cholesterol and the sex hormones, at least, which are derived from it, are active tissue proliferants. Neoplasm is simply an aphysiologic proliferation. The deposition of cholesterol, the body fluids being limited in their capacity of solution inversely with their pH—again a matter of systemic tissue activity—also results in irritation (spasm or claudication) and neoplastic proliferation.

CONCLUSIONS

Hypoglycemia may be a transient phenomenon, but there is good reason to hold that it is a constant feature of chronic states that are significant from the standpoint of prophylaxis in cancer, degenerative arthritis, and noninfectious cardio-vasculorenal disease.

Hypoglycemia is pathognomonic of an anxiety state; treatment directed against it primarily is only symptomatic and highly empiric.

Anorexia nervosa, as a disease, is not confined to women, the symptom-complex being modified only by the differing gonadal component. It is a redundancy in diagnosis, and serves only to confuse a phase of medicine not yet clearly defined, psychophysical interrelations. It distorts, by exaggeration, one symptom, anorexia, in a train more adequately defined under the generic title, "anxiety neurosis."

An anxiety state is a primary etiologic factor in the degenerative diseases. Endocrine incoördination is its immediate effect. Defective cholesterol catabolism is the result.

The prevention of the degenerative diseases lies in the body's capacity completely to excrete or catabolize cholesterol which is in excess of the body's needs.

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DISCUSSION

Alfred C. Reed, M.D. (350 Post Street, San Francisco). I have read Doctor Quinlan's paper with extreme interest. It is an excellent example of much-needed integrative thinking in medicine. It brings together disparate and apparently inconsistent data on the degenerative diseases, and suggests an underlying uniformity which is logical and fully worthy of intensive study. His first paragraph epitomizes the recognized importance of such study. It is greatly to be hoped that Doctor Quinlan will be able to continue and extend these ideas.

*

I. W. Thorne, M.D. (490 Post Street, San Francisco). To discuss Doctor Quinlan's paper intelligently one must needs be a biochemist, endocrinologist and physicist at one and the same time, which I am not. Nevertheless, some of his observations regarding the anxiety state and its accompanying or following bodily dysfunctions are very interesting, and I believe, with Doctor Quinlan, undoubtedly the starting point of permanent destructive process as evidenced in carcinoma, arteriosclerosis and its concomitants as well as multiple arthritis.

So many discoveries regarding the interrelations of the several endocrine glands and their various and sundry hormones are presented that a very clear and logical survey of these interrelations and the effects of the disturbance of these interrelations must accompany any discussion of a state purported to result from such disturbance or imbalance.

I know from experience that the exhibition of insulin in small doses with the forced feeding of carbohydrates (sugar) in the condition of depression, physical and mental, which accompanies the later stages of carcinoma, will often make such a change for the better that one is almost compelled to believe that a miracle has been performed and that his patient has been cured. However, this great improvement is but transitory, for within a fortnight or so the cancer process regains the upper hand and the patient slips back into weakness, emaciation, and anemia, all of which were so much abolished.

I have wondered about such an ephemeral improvement, its cause, its decline and its disappearance; may not the lack of some other endocrine product, some hormone, be at the bottom of such disaster or may not the lack, originally, of some hormone be the cause of the original disease?

That anxiety states are the cause of duodenal and pyloric spasm I have not the slightest doubt and, if long-continued, cause duodenal ulcer.

‡ If, as Burns says,[17] speaking of the synthesis of glucose in plants, "Carbon dioxid and water are fully oxidized," and chemical principles apply indiscriminately in biological processes, then the process by which plant or animal (glycogen) starch is converted into their respective number of absorbable glucose molecules and the assimilation of these glucose fractions into glycogen molecules specific for human flesh, or the reconversion of human glycogen to glucose cannot be said to have been accomplished likewise by oxidation. The assimilation of glucose into glycogen by the body is by condensation or dehydration, and the reversion of glycogen to glucose is effected by hydration or hydrolysis. Glucose, then, in being catabolized, is subjected to reduction. Insistence upon this distinction is important, as it helps to eliminate much of the confusion in the interpretation of endocrine implications in metabolic processes.

POLLEN SURVEY*

A REPORT ON THE ARCATA DISTRICT HUMBOLDT COUNTY, CALIFORNIA†

By William C. Deamer, M.D.
Harry L. Jenkins, M.D.
Arcata
AND
Dorothy Scott Lazarus
San Francisco

Discussion *by R. W. Lamson, M.D., Los Angeles; H. E. McMinn, Professor of Botany, Oakland.*

RECENT monographs on the subject of pollenosis have been inadequate in regard to the pollen situation on the Pacific Coast. One of the authors (H. L. J.), in 1935, called attention to the desirability of an atmospheric pollen count in Humboldt County in the northern California region. Technique and organization for such a study had been developed in the Pediatric Department of the University of California for a previous survey.[1] It was decided, therefore, to coöperate in the present study, which approaches the problem from an angle different from that used by Rowe and Howe in their botanical survey of northwestern California.[2] They employed the method of field survey.

TOWN OF ARCATA

Arcata is a town of 2,000 population, situated 290 miles north of San Francisco, on Humboldt Bay, and is in the coastal redwood (Sequoia sem-

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We wish to thank Professor H. E. McMinn of Mills College, Oakland, who acted as consultant in this survey.

† An atmospheric pollen count of Arcata in Northern California.

TABLE 1.—*Record of Atmospheric Pollen for Arcata, California, 1935, 1936*

Common Name	Botanical Name	1935 August 24-31	1935 September 1-7	8-15	16-22	23-30	1935 October[1] 1-7	8-15	1935 November 1-7	8-15	16-22	23-30	1935 December[2] 1-7	8-15	16-23	1936 January[3] 24-31	1936 February 1-7	8-14	15-21	22-28	1936 March 1-7	8-15	16-23	24-31	1936 April 1-7	8-15	16-22	23-30
Grasses																												
Grass family	Gramineae	8	3	12	9	8	1	3	0	0	0	0	0	0	0	0	1	2	0	3	1	1	0	3	3	7	11	25
Weeds																												
Ragweed, etc.	Ambrosieae	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5	1	1	0	2	3	0	0	0
Sagebrush	Artemisia	1	5	3	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	11	1	1	1	0	0	3	1	2
Amaranths Chenopods, etc.	Amaranthaceae } Chenopodiaceae }	3	0	6	5	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Plantain	Plantago	1	7	1	2	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dock	Rumex	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	6	8	22
Nettle	Urtica	0	0	0	0	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trees and Shrubs																												
Alder	Alnus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	3	12	124	9	2	5	1	3	6	2	0	2
Cypress family	Cupressaceae	0	0	7	48	21	5	3	4	1	8	3	12	5	44	210	25	28	18	7	5	13	4	14	18	9	4	2
Silk-tassel tree	Garrya	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	0	0	0	0	0	0	0	0
Pine family	Pinacae	1	1	1	1	1	0	0	0	1	0	0	2	0	0	1	8	7	1	5	3	30	59	12	5	12	7	11
Cottonwood	Populus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	4	7	1	0	0	0	0	0	0	0	0
Oak	Quercus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	0	0	0	3	0	0	5	0	0	1	1	0
Willow	Salix	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0
Elm	Ulmus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	0	4	2	7	12	0	1	2	4	1	0	0

NOTE:—The numbers indicate the total number of pollen grains which fell on an area of one square foot during the period of one week.
[1] The record is missing for the two weeks of October 16 to 30.
[2] The record is missing for the one week of December 24 to 31.
[3] The record is missing for the three weeks of January 1 to 23.

TABLE 1.—*Record of Atmospheric Pollen for Arcata, California, 1935, 1936 (Continued)*

Common Name	Botanical Name	1936 May[4] 8-15	16-23	24-31	June 1-7	8-15	16-22	23-30	July 1-7	8-15	16-23	24-31	August 1-7	8-15	16-23	24-31	Glycerine: September 1-7	8-15	16-22	23-30	October 1-7	8-15	16-23	24-31	November[5] 8-15	16-22	23-30
Grasses																											
Grass family	Gramineae	41	70	28	44	253	613	161	87	262	168	93	62	80	72	41	32	14	7	12	11	14	32	25	11	3	7
Weeds																											
Ragweed, etc.	Ambrosieae	1	1	3	1	1	20	19	12	25	33	38	32	35	32	11	5	3	16	3	21	13	8	4	7	4	1
Sagebrush	Artemisia	5	5	0	1	3	4	5	1	5	1	11	1	2	1	1	1	3	11	1	1	5	1	2	1	1	0
Amaranths Chenopods, etc.	Amaranthaceae } Chenopodiaceae }	0	8	0	1	1	12	14	12	7	4	7	5	4	1	1	0	2	0	1	1	1	3	4	1	1	0
Plantain	Plantago	0	4	8	50	40	74	27	49	22	56	49	44	35	35	5	3	1	4	0	3	6	8	4	2	2	1
Dock	Rumex	8	18	3	19	20	31	12	16	4	1	4	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0
Nettle	Urtica	0	2	2	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Trees and Shrubs																											
Alder	Alnus	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cypress family	Cupressaceae	7	1	1	7	1	5	3	0	3	1	1	1	1	3	5	2	0	1	0	1	0	1	1	1	1	0
Silk-tassel tree	Garrya	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Pine family	Pinacae	16	12	4	2	2	1	1	1	1	3	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0
Cottonwood	Populus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Oak	Quercus	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Willow	Salix	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Elm	Ulmus	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0

NOTE:—The numbers indicate the total number of pollen grains which fell on an area of one square foot during the period of one week.
[4] The record is missing for the one week of May 1 to 7.
[5] The record is missing for the one week of November 1 to 7.

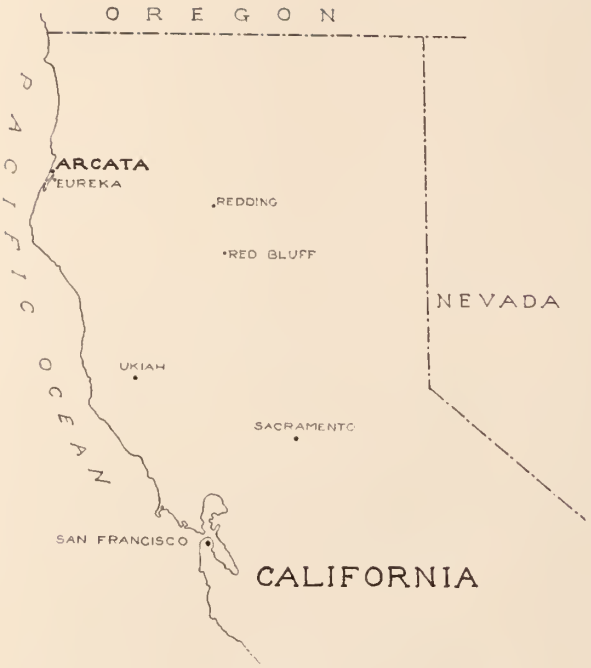


Fig. 1.—Showing location of Arcata

pervirens) belt. Considerable fog and a generous rainfall, from October through April, are common to this area. At Eureka, eight miles from Arcata, the annual rainfall averages 38 inches (Fig. 1).

The lowest mean monthly temperature is 47 degrees, and occurs in January. The highest mean temperature is 56.2 degrees, and occurs in August. Thus, the seasons are mild and not markedly differentiated. The pollinating periods of grasses and weeds are correspondingly long, a characteristic also of the San Francisco area.

AIR SURVEY TECHNIQUE

The observations recorded in this report extend over a period from August 24, 1935 to November 22, 1936, with the omission of certain slides in transportation and other causes. As in a previous study, a standard size microscope slide, coated with vaselin, was exposed daily for twenty-four hours. A small tin slide holder of the type described by Acquarrone and Gay [3] was used. This was placed on a second-floor window ledge of an apartment building on the north side. At intervals of from two to four weeks the slides thus exposed were sent to the Pediatric Department Laboratory at the University of California Hospital for the identification and counting of pollen grains. The technique of counting was the same as in a previous survey in San Francisco.[1]

POLLINATING SEASONS

The pollinating season for grasses and most weeds was even longer than was found in the San Francisco study in 1933. Although due allowance must be made for differences in the position of slide holders, as well as variations from one season to another, it is also apparent that there is a heavier grass pollen crop at Arcata than in San Francisco. The average of four San Francisco stations showed about 210,000 grass grains per square foot for the entire year, while the Arcata station showed ten times this amount. Pollen from the ragweed tribe was also more abundant at the Arcata station in the years studied. The average total number of ragweed grains per square foot for San Francisco in 1933 was 21,500, whereas the total for Arcata over a year's period (November, 1935 to November, 1936), was 361,000 grains. These figures include false ragweed (Franseria) and cocklebur (Xanthium), as well as true ragweed (Ambrosieae), as accurate differentiation between the pollen grains of these members of the ragweed tribe was not considered possible. As true ragweed (Ambrosieae) tends to be more important in pollenosis, and as Durham [4] has reported such low figures for Ambrosieae at other coastal stations, a more complete botanizing of this district would be of interest in regard to further differentiation within this group of pollens.

Plantain pollen, likewise, was more abundant at Arcata in 1936 than at San Francisco in 1933, while sage pollen was somewhat less so. Among the trees the absence of acacia and eucalyptus, and the small amount of oak pollen at Arcata, are the outstanding differences in the two stations.

In general, the pollenating seasons, indicated in Rowe and Howe's Botanical Survey of Northern California,[2] for Humboldt County, in which Arcata is located, agree well with those of the present report. However, these authors make no mention of plantain pollen, which we found to be abundant at Arcata from June to September.

MEDIA FOR SLIDES

During the course of the study, we became interested in possible advantages of a glycerin and methylene-green mixture over vaselin as a coating for slides. Wodehouse [5] feels that glycerin is superior, as it expands the pollen grain and thus reveals certain features not seen in the collapsed dried state usually found in vaselin slides. He emphasizes the point that germinal pores, which are otherwise hidden by a collapsed "folding membrane," may become visible, and that details are brought out by the addition to the glycerin of methylene-green stain. Accordingly, we compared the two media on slides exposed in San Francisco. Identification was occasionally, but not always, easier on the glycerin slide due to the expansion of the pollen grains. However, all grains were not expanded, collapsed forms being frequently seen on these glycerin slides. It was apparent also that some of the previous "unknowns" on vaselin slides were expanded forms with which we were not familiar at the time. When uncoated slides were exposed, expanded forms were usually collected. It is our impression that where a considerable variety of pollen is in the air, identification can be made easier by exposing a vaselin and a glycerin-coated slide simultaneously side by side. In identifying expanded grains the illustrations of Wodehouse are very helpful. Glycerin slides, freshly prepared with known pollens, are also a great aid.

As noted in Table 1, the last few months of the study were conducted with glycerin-coated slides.

Some loss of detail occurred due to the length of time which elapsed before the slides were examined. Although it was not possible in this instance, glycerin slides should preferably be counted within twenty-four hours after exposure.

FACTORS AFFECTING POLLEN COUNTS

It is possible that glycerin-coated slides tend to collect slightly more pollen than slides coated with vaselin. In studying this point, slides of each type were exposed side by side for seven months. They were changed every day or two. In an area of 1.8 square centimeters, a total of 1,972 grains were collected in the vaselin slides, while 2,318 grains were collected in the glycerin slides.

Pollen itself seems to have some adhesive properties, and position of slides rather than type of coating may make for the greatest difference in amount of pollen caught. For example, when slides were held at their end by a clamp and projected over the edge of the roof with one surface coated and the other not, the uncoated surface would frequently catch more pollen than the coated surface, provided it was the underneath surface. This is because the undersurface is the one facing the upward current of air usually found on the side of buildings.

We also exposed two vaselin and two glycerin slides, side by side, for varying periods. While the method of counting the number of grains seen in four trips across the slide occasionally gave great variations in two identically exposed slides, these variations were fairly well equalized in totaling the grains caught over an eight-day period. We wish to emphasize, however, that in pollen counts of this type the most reliable information is that obtained in respect to type of pollen and length of season, rather than quantitative values. Due to the variations in quantity which position and location of the slides give, only very marked quantitative differences between stations are of significance.

Medical Center.

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DISCUSSION

R. W. Lamson, M. D. (1930 Wilshire Boulevard. Los Angeles).—The importance of pollen in clinical allergy may be investigated from at least three standpoints: (1) A field survey of plants and pollens; (2) skin tests with dependable extracts; and (3) clinical correlation with the data yielded by the previous examinations.

The first subdivision most closely relates to the article under discussion. It forms such a highly specialized field of biology that few expert botanists, and fewer physicians, have more than a superficial knowledge of its problems. Many "botanic surveys," especially those in which common names only are used, and those designating the results of a series of skin tests as a pollen survey, reflect that lack of knowledge. It is of prime importance to determine what plants are grown in the patient's community and, in addition, the atmospheric pollen count. The latter may include pollens brought in from a considerable distance. Until recently, such information was practically nonexistent—and still is for much of the western section. The study reported by Deamer, *et al,* is a necessary step in overcoming such deficiencies. Durham, to whom they have referred, is our most ardent champion of pollen counts, and his contributions have been invaluable. His investigations have centered in areas east of the Rocky Mountains, and are not necessarily an answer to the western problem. For example, in many eastern states the "fall" pollen factor may be quite well studied by a consideration (and the use), of a half dozen pollens. Contrary to popular belief, these need not include goldenrod. The ragweed type is of major, if not sole, importance in most areas. Hence Durham's grouping of several composites into this type is adequate, and almost a necessity in view of the magnitude of his study.

In the western territory a very different situation exists. Many articles have called attention to the great variation in plant distribution within a few miles, and, equally important, the variation in time of pollination from year to year for many species.

The second main heading also has a bearing upon the inadequacy of grouping pollens into such a mixture as "ragweeds," "grasses," and Chenopodiaceae (chenopods). The school which believes in the specificity of pollen reactions would like to know, first, the reactions of a patient to the more important species within a genus; second, whether these occur in the sections where the patient has symptoms, and third, whether they might have been pollinating at that time. Failure to emphasize this clinical correlation forges the weakest link in a scientific chain, otherwise potentially strong.

The authors have correctly emphasized many of the technical difficulties, and at the same time the great importance of "a more complete botanizing" of their district. It is suggested that some of the difficulty in distinguishing between the pollen grains of members of the ragweed tribe may be offset by a thorough ecologic study of the area. Each year one should keep in touch with the general features of growth of the plants, the date and duration of pollination for each major species. If one is quite familiar with each species, or better still, is in touch with a pollen collector, he may readily determine which plants are profuse pollinators and the general physical characteristics (such as light, dry, etc.), of each pollen. Such information is as valuable as pollen counts.

In conclusion, it seems safe to state that many patients in the western third of the United States experience as severe allergic symptoms due to pollens as are experienced by those in the remainder of the country. The findings at Arcata by Doctors Deamer, Jenkins, and Lazarus, and in the other articles they referred to, as well as unpublished studies in Los Angeles by Wodehouse and myself, confirm the general impression that the maximum "pollen count" in the West never approaches the average reported for the central states. The clinical significance of pollen cannot be anticipated by a mathematical comparison of the count in two widely separated sections. This lends further emphasis to the detection of local pollens, such as plantain, to species within the genera and also to botanic comparisons, such as these authors made between Arcata and San Francisco.

❦

H. E. McMinn, Professor of Botany (Mills College, Oakland).—The geographical area included in the pollen survey made by Deamer, Jenkins, and Lazarus is interesting botanically. The area around Arcata, California, belongs to the Coastal Transition Life Zone, a belt in which plants of many species can thrive and produce pollen over long periods without danger of killing frosts. This area receives more rain and fog than that around the San Francisco Bay and, therefore, it is not surprising that the authors report a longer pollinating season for grasses and weeds about Arcata. Velvet Grass (Notholcus lanatus), occurs more abundantly in the northern coastal area than around the San Francisco Bay, and that would partly account for the greater number of grass pollens reported by the authors. Plantain thrives well in semidisturbed and grazed-over areas all along the Pacific Coast. I would expect pollen of this plant in the Arcata area, although no

mention was made by Rowe and Howe in their botanical survey of northwestern California.

Local pollen surveys, such as the one just completed by the authors of "An Atmospheric Pollen Count of Arcata in Northern California," should not only be made in a greater number of areas in California, but the results should be studied by members of the medical profession practicing in those areas. These results should also become a part of the routine diagnosis of pollen hay-fever.

RELATION OF CHILDHOOD INFECTIONS TO BEHAVIOR*

By Arthur R. Timme, M.D.
Los Angeles

IN working with a large number of school behavior problems over a period of years, especially in a large metropolitan system in which the mentally defective are soon detected and provided for, one sees the emergence from the daily material of the neurological clinic, a frequent and typical picture which I wish to describe in this paper. With striking frequency, teachers and nurses refer a child because he is "nervous," "he won't concentrate or sit still," "he is into everything," "I can't do a thing with him," "he takes up most of my time," etc. Out of 105 consecutive cases referred, seventy-one were of this type.

CHARACTERISTICS

The following characteristics are more or less common to this type:

1. Behavior, as described in the complaints enumerated above, is hyperkinetic, restless, flighty, uncontrolled, impulsive, explosive, and overaggressive.

2. Certain physical signs and symptoms are found, *e. g.*, a muscular unsteadiness, as shown in the outstretched hands, of varying degree, sometimes going as far as choreiform jerkings; occasional tremors; poor coördination; hyperactive reflexes; occasional increased salivation; occasional enuresis, polyuria and disturbed water balance; temper tantrums resembling automatic rages; fatigability; obesity or malnutrition; disturbances of sugar tolerance; tendency to high fevers; headaches accompanied by digestive disturbances; migranoid attacks; disturbances of sleep.

3. A history of definite change in behavior, growth, development, etc., following an illness, especially when this illness involved high fever or delirium or stupor. Head trauma, especially with unconsciousness, may have been the starting point.

RELATION TO ENCEPHALITIS

This combination of history, behavior and findings immediately suggests encephalitis. Encephalitis has been known to complicate the childhood infections for a long time. In fact, there is scarcely an infectious disease of any kind which encephalitis does not complicate. One need only to peruse the titles under that heading in the Index Medicus to see a list of most known diseases. Measles seems to be the chief offender in this respect, and there are countless case reports and many pathological studies of measles-encephalitis.[1,2] In the last decade or so, postvaccinal encephalitis has also been described, the later sequels of which are studied by Kaiser and Zappers of Munich.[3] Scarlet fever,[4] chicken pox,[5] otitis media,[6] pneumonia,[7] undulant fever,[8] and numerous other infections are described time and again as causing encephalitis.

Pathological studies seem to present a fairly uniform picture, no matter what the disease causing the encephalitis—a uniformity quite paralleled by the clinical aspect. Knauer[11] and Jaensch of Breslau point out the similarity of all encephalitides. Globus[12] of New York says: "By placing side by side the various forms of inflammatory disease of the central nervous system, a striking confluency of all the encephalitic forms has been revealed, and it has been suggested that the minor histologic differences express mainly the degree rather than the character of the pathologic process, and it is not unlikely that there are variations in intensity of the excitant and variations in the local vulnerability of the tissue rather than with distinct types of causative agents."

The specific relation of encephalitis to behavior problems in children, however, has not engaged much attention until recent years. In 1922, Bonhoeffer[9] described residuals of disturbed behavior in children who had had epidemic encephalitis. A number of other similar descriptions appeared shortly afterward, and in 1925 Hall[10] gave a classification and description of the sequels of encephalitis which has coincided with most of the later work and still holds good today. He groups the after-effects as follows: (1) the idiot, or mental defective group; (2) the Parkinsonian group (this is an extremely well-known sequel and not within the scope of this paper); (3) the Apache group (the more pronounced aggressive, antisocial children, dirty about their person, sex-delinquent and showing occasional homicidal tendencies; (4) the "difficult child" group. (4) differs from (3) only in degree and he describes these children as hyperactive, excitable, irritable, quarrelsome, uncontrollable, fatigable, lacking concentration, drowsy in the daytime and sleepless at night (the so-called sleep reversal). They show a loss of emotional affectivity, which deprives the parent of the chief means of guidance and control: "as though astride a colt being broken to harness and the reins suddenly gave way. The whip is now worse than useless and it requires good horsemanship and suitable country to regain control and escape trouble." How apt the simile in every detail! Then came the now classical work of Bond[13,14] and his coworkers in Philadelphia—a detailed study and treatment in a hospital school of a group of postencephalitic behavior disorders over a period of ten years. This experiment served to establish among our concepts the definite syndrome of postencephalitic behavior disturbance. However, the boys and girls that Bond worked with represent the more extreme and severe results of the encephalitic process upon the behavior of children. This concept, nevertheless, is the prototype of the present study, with some slight variations in identity and greater variations

* Read before the Neuropsychiatry Section of the California Medical Association at the sixty-seventh annual session, Pasadena, May 9–12, 1938.

in degree. Most of our children were not "bad" enough to have to be sent to a hospital (although many should have been); yet they created everyday school and home and community problems of sufficient gravity to merit study and treatment.

OTHER TYPES

Many severe modifications of the machinery of behavior, the nervous system in its entirety, go unrecognized in their inception. For instance, a child has scarlet fever and eventually recovers. During the course of the illness there is a high fever with periods of delirium; there may not be any meningitic or focal signs at all. After recovery no gross neurologic signs are present and the doctor says he will be all right. At the age of five or six, the more subtle changes in personality, nervous integration, etc., are not so apparent. The child is still "run down" and receives a considerable amount of care and indulgence, so that less profound changes are not so readily discernible. Later on, when exposed to competition with other children—*e. g.,* in school—the signs and symptoms that go to make up this syndrome unfold themselves. Everyone has measles and many of us fall on our heads at some time or other during childhood. These are just some of life's experiences, and most of us remain unscathed thereby, we hope. Naturally, not every infection or trauma disturbs those parts of the brain that are concerned with self-control, integration, concentration, inhibition of indiscriminate activity, resistance to fatigue, coordinate functioning of the bodily musculature and a number of other functions. Incidentally, these seem to be widely scattered and apparently unrelated functions; yet a simultaneous disturbance in this group of functions occurs with a frequency that must have some significance. Furthermore, these disturbances of function can create a behavior so annoying to parents, teachers and others, and can, as a result, call forth reactions and counteractions of such a kind that a full-fledged orthodox "behavior problem" situation is at hand. Parental and teacher resentments, rejections, preferences, antagonisms, indulgences, overprotections, etc., human though they are, constitute an integral part of most "behavior problems."

PATHOLOGICAL LOCALIZATION

Pathological localization of the morbid process in these milder forms of encephalitis is naturally difficult and as yet largely speculative. It is generally thought that a virus passes through the cribriform plate and, because of proximity, invades the basal gray matter. There seems to be some affinity for basal nuclear structures, as seen in the frequency of Parkinsonian sequelae. But the most convincing evidence is found in the emotional changes (explosive rages, etc.); sleep disturbances (insomnia, reversals, narcoleptic conditions); metabolic and growth changes related to the hypophysis and hypothalamus; extrapyramidal motor signs (choreiform restlessness and incoördination); water metabolism disturbances; etc. I think Cushing's[15] work has definitely localized most of these functions around the third ventricle, in the hypophysis and adjacent gray matter.

CEREBRAL TRAUMA

There is a striking similarity between the above changes and those following cerebral trauma, as indicated before. This has been noted by numerous observers. Not many, however, have attempted to localize the actual pathology underlying this group of behavior changes. Friedman[17] has visualized definite organic changes in the encephalogram of head injuries, without attempt at localization. Blau[16] suggests a localized lesion of the prefrontal association area, but does not overlook the actual pathological "core" which is a disturbed integration or a dissociation between the higher and lower cerebral levels. He, furthermore, recognizes the importance of the subcortical ganglia in the "system of instinctual drives and motor impulses which form the basis of behavior." In our experience clinical evidence certainly points to a dissociation of the higher and lower levels of cerebral function, and with a striking frequency to the direct involvement of the so-called primitive brain (in both postencephalitic and posttraumatic behavior disturbances) because of accompanying neurovegetative and neuro-endocrine symptoms.

MILDER FORMS

Most studies heretofore have not dealt with the milder degrees of such disturbances. The absence of immediate and gross neurologic sequelae has apparently caused the investigator of later behavior difficulties to lose sight of the primary insult. Thus Kaiser and Zappert,[3] although they mention headache, confusion, instability and irritability, minimize these in their search for neurologic signs. Healy,[18] in the case of lethargic encephalitis, makes the following points: the severity of the initial infection is not an index of the severity of the sequelae; the age of onset has no direct relationship to the appearance of symptoms—there may be a long "latency period" up to puberty; there is no correlation between the neurologic signs and the severity of the behavior disturbance, between the severity of the illness and the effect on intellectual function; the disease is frequently overlooked due to mildness of onset and difficulty of early diagnosis. He, furthermore, says, "It may well be that the cause of not a few difficult careers is encephalitis," and, "Does this disease offer a possible etiologic explanation for at least some pathologic personalities, and in part for the hyperactivity shown in such a large proportion of delinquent children?" A careful early health history often reveals (to the parents) noticeable changes in growth, rate of development, self-control, emotional response, resistance to fatigue, etc., following one of the infectious diseases or a blow to the head with varying degrees of unconsciousness. The age of puberty may later bring out a rapid increase in weight, fainting spells, increasing sluggishness and disinterest, etc.

SEVERE FORMS

The more severe forms of postencephalitic behavior disturbance, like Hall's[10] "Apache" group or Bond's children, are soon recognized as such and constitute a known problem in itself. The underlying mechanism is considered by most ob-

servers to be a lifting of the inhibitions exercised by the higher centers over the lower, whether this be a prefrontal lesion, an interruption of certain tracts between the neocephalic and paleocephalic levels (Bonhoeffer[9]), destruction of some integrating structure, or whatnot. There is an impairment of the physical counterpart of Freud's "censor," or of the controller and regulator of civilized behavior. The clinical picture is a well-defined entity. The milder forms, however, corresponding to Hall's "difficult child" group, may never be recognized for what they really are, and may develop into classical orthodox "behavior problems," according to the reactions their behavior calls forth from the environment. A restless, distractible, uncontrolled child meets rejection, repression, and severity. He develops rebellion, insecurity, inferiority, and a long train of undesirable compensatory behavior is let loose. Equipped as he is with a poorly integrated nervous system, adjustment becomes increasingly difficult. Almost as destructive to his adjustment are anxiety and overprotection on the part of the parents. Distractibility and scattering of attention lead to difficulty in school; pressure by the parents makes matters worse. Poor coördination prevents adequate competition in play. And so the destructive chain of events might be endlessly prolonged. Although the neural damage of the encephalitis was the starting point of the difficulty, it is the interplay of multiple factors that creates the ultimate problem. On the other hand, we have been too prone to be sidetracked by these later and more apparent factors in the problem, have overlooked or insufficiently appraised the starting point, and have thereby neglected some important methods of treatment.

PITUITARY AND HYPOTHALAMIC DISTURBANCE

Mention was made of the relative frequency of pituitary and hypothalamic disturbances in this syndrome. This has both a diagnostic and a therapeutic implication—diagnostic in so far as it tends to localize pathology in the basal gray matter or primitive brain, therapeutic in that it gives clues to aids in treatment. Ten per cent of these children show one or more of the following: disturbances in water balance in either direction: enuresis or polyuria; increased sugar tolerance with a flat sugar tolerance curve; fatigability in the absence of other demonstrable cause; tendency to obesity and Froelich's syndrome; craving for sweets and other carbohydrates; vasomotor disturbances; deficiency of thyroid or gonads. These signs are, of course, merely indicative rather than conclusive.

MEDICAL TREATMENT

A medical treatment which we have found successful in many cases is directed chiefly toward sedation of the autonomic centers and pituitary stimulation. Small doses of phenobarbital, morning and evening, have caused an unlooked for improvement in restlessness and irritability. Massive doses of whole pituitary have caused an increased feeling of well-being, greater resistance to fatigue, a tendency to normalization of weight, frequent lessening of enuresis, regulation of menstrual disturbance, etc. All other physical conditions found are, of course, also treated as required. The hopes implied in this procedure may sound too sanguine. In dealing with the physical and mental problems of children, one can never discount the influence of ordinary growth and maturation in the direction of normality; we probably take credit for many good results that would have come anyway. Furthermore, it must be understood that medical treatment alone is rarely, if ever, efficacious—no more so than is it valid to consider the encephalitis the sole cause of the behavior disturbance. Along with medical treatment must go all necessary social treatment. Parents and teachers are required to accept this child as a handicapped child, and intelligently adapt their expectations to his capacity. Parents must be helped to change their destructive attitudes, be they plus or minus. Adequate rest periods and interruptions of sustained effort are instituted. Legitimate satisfactions are provided to replace undesirable compensations. Curricular adjustments are made. Foster home or institutional placements are made when necessary, and many other forms of social treatment may be called into play. Yet all these procedures can often be made easier and more efficacious if the marked tension surrounding the problem is broken into at some such point as is afforded by adequate medical treatment. When a child begins to be less hyperactive and irritable, sleeps and eats better, can concentrate for longer periods of time, the tension is eased and subsequent treatment can more adequately proceed.

SUMMARY AND CONCLUSIONS

Many behavior problems have their origin in the childhood infectious diseases, especially when complicated by encephalitis, and in cerebral trauma, whether during[19] or after birth. The milder degrees of these frequently go unrecognized until the child's behavior brings him into conflict with his environment. As a result of neural damage, these children become hyperkinetic, irritable, distractible, uncontrolled and aggressive. The reaction of adults to this behavior soon creates a problem situation. Besides the history of personality changes after the infection, examination shows choreiform restlessness, poor coördination, hyperactive reflexes and various signs referable to the hypophysis and hypothalamus. Disturbances of sleep and metabolism may be present. These findings indicate that the pathology is localized in the basal gray matter and hypophysis. Medical treatment directed toward autonomic sedation and hypophyseal stimulation may be successful in quieting and stabilizing the child. This eases the surrounding tension and makes subsequent social treatment more efficacious. Childhood infectious diseases should be carefully watched for signs of encephalitis.

Our experience with this group of cases reemphasizes the need of comprehensive study of every behavior problem from all angles. While it is true that adverse environmental situations call forth undesirable behavior in a given child, it is also true that flaws in the machinery of behavior lead to trouble even in a not too unfavorable environment. These flaws can go unrecognized for

years, but can be brought to light through careful history taking and adequate neurological and endocrine study.

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CHIROPRACTIC PRACTICE ACT OF CALIFORNIA†

DECREE OF THE SUPERIOR COURT OF SAN FRANCISCO, DATED OCTOBER 6, 1938

In the Superior Court of the State of California in and for the City and County of San Francisco
No. 257,362

In the Matter of the Application of M. James McGranaghan, for Declaratory Relief, Plaintiff, vs. Dora Berger, Intervenor and Defendant, vs. Roy G. Labachotte, Intervenor and Defendant, vs. The People of the State of California,* Intervenor.

† For a Proposed Chiropractic Initiative Law, see page 480. Also, see letter item on page 479.

* U. S. Webb, Attorney-General, Lionel Browne, Deputy, 640 State Building, San Francisco, California, Attorneys for Intervenor, the People of the State of California.

JUDGMENT

The above-entitled cause came on regularly for trial on the first day of June, 1935, before the Court, sitting without a jury, M. James McGranaghan, plaintiff and petitioner, appearing in *propria persona*, Roland J. White, Esq., appearing as attorney for intervenor and defendant Dora Berger, Frank V. Kington, Esq., appearing as attorney for intervenor Roy B. Labachotte, and U. S. Webb, Attorney-General, and Lionel Browne, Deputy Attorney-General, appearing for intervenor, the People of the State of California, and evidence, both oral and documentary, having been introduced, and the cause submitted for decision, and the Court heretofore made and caused to be filed herein its written findings of fact and conclusions of law, and the Court being fully advised:

Wherefore, by reason of the law and the facts found as aforesaid, it is ordered, adjudged, and decreed:

That M. James McGranaghan, petitioner herein, is a graduate of the National College of Chiropractic of Chicago, Illinois.

That the above-named M. James McGranaghan, Dora Berger, and Roy G. Labachotte, together with a large number of other persons, are chiropractors duly licensed under the laws of this State relating to the practice of chiropractic.

That it is true that an actual controversy exists between the parties to this action, and between divers persons licensed as chiropractors under the provisions of the Chiropractice Act of California, Statutes 1923, Chapter 88, and between chiropractors and drugless practitioners licensed under the provisions of the Medical Practice Act, Statutes of 1913, Chapter 354, and between chiropractors and physicians and surgeons, as to the scope of practice authorized under the provisions of Section 7 of the Chiropractic Act of California.

That it is necessary, to prevent continued conflict and controversy now existing, that the provisions of Section 7 of the Chiropractic Act of California be precisely construed.

That it is true that the petitioner is entitled to a precise construction of Section 7 of the Chiropractic Act of California, and to have a declaration of his rights and duties as a licensee thereunder in order to remove the danger of criminal prosecution for exceeding his authorized scope of practice, and to remove grave danger of jeopardy in the event of civil action for negligence in the use of measures outside his authorized practice.

That the People of the State of California, an intervenor in the above-entitled cause, is an interested party for the purpose of having an interpretation and construction of the said Section 7 of the Chiropractic Act of California.

That Dora Berger is licensed under the provisions of the Chiropractic Act of California, Statutes 1923, Chapter 88; that her interests are adverse to the plaintiff and that the scope of her practice may be materially affected by the determination of this action.

That Roy G. Labachotte is licensed under the provisions of the Chiropractic Act of California, Statutes 1923, Chapter 88; that his interests are adverse to the plaintiff and that the scope of his practice may be materially affected by the determination of this action.

That the phrase "materia medica" is a Latin phrase and not of the English language, but that it is a phrase of such common and well-known meaning that its use is not in violation of the Constitution of the State of California.

That it is not true that at the time of the adoption of said Chiropractic Act, or for any time prior thereto, any of the following subjects were or had been taught as chiropractic in chiropractic schools or colleges, to wit: anatomy, embryology, physiology, chemistry, toxicology, histology, pathology, neurology, bacteriology, physical diagnosis, laboratory diagnosis, nerve tracing, symptomatology, special technique including replacing shoulder, hip, rib, and foot subluxations and dislocations, obstetrics, gynecology, pediatrics, first aid and minor surgery, terminology, hygiene, sanitation, treatment of diseases of the eye, ear, nose and throat, diatetics, psychiatry, x-ray, jurisprudence, mechanotherapy, massage, medical gymnastics, hydrotherapy, colonic therapy, physiotherapy, electrotherapy, phototherapy, and practice building; that it is true that at the time of the adoption of said Chiropractic Act, and for a

long time prior thereto, the following subjects were taught as chiropractic in chiropractic schools or colleges, to wit: chiropractic, which is hereinbelow defined; chiropractic technique, which is the adjusting, in accordance with the theory of chiropractic, of the segments of the spine by hand when vertebrae are misaligned; spinal diagnosis or analysis, which is the method, according to the theory of chiropractic, of ascertaining the relation of the various vertebrae of the body to each other, for the purpose of ascertaining whether there is a misalignment of vertebrae which causes interference with the transmission of nerve force, and palpation, which consists of exploring and feeling the body over the spine to ascertain, by feeling, the relation of the various vertebrae to each other.

That it is true that chiropractic consists solely and not otherwise with the manual adjustment of subluxations and misalignments of the segments of the spine, when such subluxations or misalignments cause occlusions of nerve and interference with the transmission of nerve force at or within the spinal column.

That it is true that the Chiropractic Act authorizes licensees to use necessary mechanical, hygienic and sanitary measures incidental to the care of the body, but that such necessary mechanical measures consist of any appropriate means, method, device or apparatus for the sole purpose of ascertaining whether or not there exists in the patient an interference with the transmission of nerve force or energy at or within the spinal column, including the chiropractic hammer, chiropractic table, x-ray and neurocolometer, but not excluding similar means, method, device or apparatus hereafter developed or discovered, for the sole purpose hereinbefore mentioned; that such hygienic measures consist of the cleansing of the exterior surface of the patient's body over and adjacent to the spinal column by means of water, soap or other and similar means, but wholly without the use of drugs, medicines, or medicinal preparations; and that such sanitary measures consist of the use of clean sheets, clean pillow cases or covers, clean towels, clean gowns or other covering for the protection of the outer surface of the patient's body from contamination, contagion or infection, or communicable disease; that the use of such mechanical, hygienic and sanitary measures is permitted to a chiropractic licentiate and that such measures do not encroach on the field of medicine, as defined in Sections 8 and 17 of the Medical Practice Act, now Business and Professions Code, Sections 2137, 2138, 2139, 2140, and 2141.

That it is true that all practices or measures, except those enumerated in the foregoing paragraphs are exclusively within the scope of practice of a license holder holding either a physician's and surgeon's or a drugless practitioner's certificate issued pursuant to the provisions of the Medical Practice Act, or the Osteopathic Act of the State of California.

That it is true that any practice by a chiropractor in excess of that authorized by the Chiropractic Initiative Act is detrimental to the health, safety, welfare and well-being of the licensed chiropractors and of the People of the State of California.

That chiropractic as taught in chiropractic schools or colleges at the time of the adoption of the said Chiropractic Initiative Act was then and is now: The manual adjustment of subluxations and misalignments of the segments of the spine, when such subluxations or misalignments cause occlusions of nerve and interference with the transmission of nerve force at or within the spinal column. That the only necessary mechanical, hygienic and sanitary measures incident to the care of the body permitted a licentiate are the chiropractic table, chiropractic hammer, towels and other instrumentalities which do not violate the provisions of the Medical Practice Act, the Osteopathic Act, the Dental Act or the Optometry Act, and which do not involve the use of any drug or medicine included in materia medica.

That all methods of treatment, save and except those which are chiropractic and which relate to chiropractic sanitation and chiropractic hygiene, constitute the practice of medicine, surgery, osteopathy, dentistry, and optometry.

That x-rays, spinagraphs or roentgenograms of the spine only may be made and taken by chiropractors for the purpose of making a chiropractic diagnosis or analysis of the spine only, but that any other use or treatment by means thereof is prohibited to chiropractors and is definitely included in the practice of medicine, surgery, dentistry and optometry.

That all practices or the use of any measures in excess of those specifically enumerated as being within the scope of practice of a licentiate in chiropractic in the State of California are not permitted to and are not authorized as to chiropractors, and particularly petitioner McGranaghan and intervenors Labachotte and Berger.

Wherefore, it is further ordered, adjudged and decreed that the intervenors Dora Berger, Roy G. Labachotte and The People of the State of California, do have and recover of and from the plaintiff and petitioner, M. Jas. McGranaghan, their respective costs and disbursements incurred in said action, with interest thereon at the rate of seven per cent (7 per cent) per annum from the date hereof until paid, in the respective sums of Dora Berger, ——— dollars ($———); Roy G. Labachotte, ——— dollars ($———); The People of the State of California, ——— dollars ($———).

Dated this sixth day of October, 1938.

JOHN J. VAN NOSTRAND,
Judge of the Superior Court.

THE LURE OF MEDICAL HISTORY†

PLAGUE EPIDEMICS IN SAN FRANCISCO: HISTORICAL NOTES

By GEORGE H. EVANS, M.D.
Berkeley

PART II*

A PERIOD of apparent security followed the epidemic of 1900 and 1901. The federal health authorities had confined the disease to the limited area of Chinatown and had made a good job of cleaning up this noisome quarter. Plague and its dangers ceased to confront the populace. Many still believed it had never existed.

RECRUDESCENCE OF PLAGUE IN 1906–1907

Even those who realized the potential dangers of further outbreak, as they looked over the four square miles of desolation following the fire of April, 1906, felt that all possible foci of infection which might have remained were thoroughly sterilized now. Pestilence could not rear its head in these areas so thoroughly disinfected by fire. All attention could now be concentrated in rebuilding San Francisco. To this all other interests must be diverted. In the hurry of rehabilitation, San Francisco neglected its opportunity of remaking a city which would present to the world a model in hygiene, architecture, and city planning. Burnham plans were impatiently cast aside; the dream of the city beautiful, the city free from structural defects which invite pestilence was ignored, and everything was subordinated to the immediate task of rehabilitation. This policy was soon to be reflected in the recrudescence of plague, which again occurred in 1907 and 1908.

† A Twenty-Five Years Ago column, made up of excerpts from the official journal of the California Medical Association of twenty-five years ago, is printed in each issue of CALIFORNIA AND WESTERN MEDICINE. The column is one of the regular features of the Miscellany department, and its page number will be found on the front cover.

* In three parts. Part I appeared in the November issue, on page 383.

Those of us who tramped over this area of "damndest finest ruins," in the ensuing few months as rebuilding got under way, will never forget the scene of desolation. Thousands of homeless people had to be housed in wooden shacks, many built on the débris of previous buildings. The earthquake had broken the sewers in many places and there was scarcely a lot in the burned area which did not have an exposed place for the ready ingress and egress of rats, which freely used this subterranean labyrinth for their migration throughout the city in search of food.

LARGER AREA INVOLVED IN THE SECOND OUTBREAK

All the conditions essential for a widespread recrudescence of plague, therefore, existed, and it was not surprising that in May, 1907, a sick man was taken to the United States Marine Hospital, where he died of plague. No other cases were discovered until August 12, but in the month of August fourteen persons came down with the disease in areas widely scattered throughout the city. The following month, when fifty-five cases of plague had been discovered, Mayor Taylor appealed to Washington for help, and Dr. Rupert Blue of the Public Health Service was sent to San Francisco. While a systematic campaign against the rat population was at once inaugurated, no one knew better than Doctor Blue that, despite all the efforts of his able group of assistants, success could not be attained without general popular coöperation. The experience gained from many epidemics in the Orient had abundantly demonstrated that, unless a determined effort to starve the rats out of a community is undertaken, trapping and poisoning alone has little effect upon the rat population. Propagation exceeds the mortality caused by trapping and poisoning. In Tokyo it had been found that after destroying four million rats the breeding rate increased as the struggle for existence among the rats was relieved.

Those of us who knew Doctor Blue and were familiar with his problem will remember the discouragement caused by his ineffectual efforts to obtain any coöperation from the San Francisco press. As in the 1900 epidemic, "big business" refused to accept the evidence that plague existed, and though confronted with the danger of a federal quarantine (for now that the epidemic was scattered throughout the city, it was no longer confined to Orientals), the press, despite the urge of Doctor Blue and Dr. William Ophüls, President of the San Francisco Board of Health, refused to "unnecessarily alarm the public," though public coöperation could only be obtained by publicizing the facts.

PART TAKEN BY THE CALIFORNIA MEDICAL ASSOCIATION

This was the situation at the end of 1907, when the Medical Society of the State of California, as the California Medical Association was then known, recognizing its responsibility to the people in a matter of grave public health emergency, decided to actively participate in an effort to arouse an uninformed public and make them plague-conscious to the impending danger. The president of the State Medical Association* had observed with alarm the steady increase in infection among the rats trapped and poisoned. In six months rodent infection had increased, without remission, from approximately one-half per cent to one and one-half per cent. It had reached a point where, from the experience in epidemics elsewhere, an increase in human infection was inevitable. While human infection had not as yet materially increased, this was due to seasonal variation. There is invariably a recession in human infection during the winter months.

The matter was presented to the California Medical Association Council by the president of the California Medical Association, and at his request a committee was appointed, consisting of Doctors Harry M. Sherman, John Gallwey, John M. Williamson, James H. Parkinson, and the president of the society [Dr. George H. Evans] acting as chairman. The result of the activities of this committee was the formation of the Citizens' Health Committee, a campaign of publicity and education, and by a concentration of power and authority in the hands of a devoted group, willingly accorded by a public now conscious of the danger which threatened, a few short months were sufficient to bring the work to a successful conclusion.

THE PLAN OF THE STATE MEDICAL ASSOCIATION COMMITTEE

The committee of the State Medical Association immediately organized and considered its plan of campaign. It was at once apparent that, without publicity, nothing could be done to avert disaster. It was, therefore, first decided to call a mass meeting of representative citizens to which six hundred invitations were issued, and that at this meeting a resolution should be presented urging the formation of a citizens' health committee of twenty-five members, to be appointed by the mayor, consisting of thirteen laymen and twelve physicians, the latter composed of names presented by the president of the State Society.

THE PUBLIC MEETING

The meeting was held, but with only sixty persons responding to the call. Present on the speakers' platform were the mayor, the president of the San Francisco Board of Health, Dr. Rupert Blue, and the members of the State Society committee under whose auspices the meeting was called. Though disappointing in numbers, those present were earnest citizens seeking facts regarding plague. These were forcefully presented by the speakers, and when Doctor Gallwey presented the resolution calling for the appointment of a Citizens' Health Committee there was no dissenting voice. The two great mercantile organizations, the Merchants' Association and the Chamber of Commerce, through their officials present, pledged their full support and coöperation.

* Editor's Note.—The president of the State Medical Association at that time was the author of this paper, Dr. George H. Evans.

CITIZENS' HEALTH COMMITTEE

The next day the mayor appointed the committee, which promptly organized and named an executive committee, consisting of Charles C. Moore (chairman), Walter MacArthur, Gustave Brenner, A. W. Scott, Jr., and Dr. George H. Evans.

The next public assembling was a mass meeting held on the floor of the Merchants' Exchange on January 28, 1908, with several hundred present. The Governor of the State emphasized the gravity of the situation; Doctor Blue drew a picture of what a federal quarantine meant; prominent state and city officials pledged coöperation with and support of the Citizens' Health Committee. The popular movement was launched.

THE COMMITTEE'S TASK

The Executive Commitee, on which devolved the problem of education and publicity, realized at once the enormity of the task confronting it. Rats must be destroyed, not only by trapping and poisoning; they must be starved and built out of the city. There must be general destruction of rat-harboring places throughout the city, and there must be no food left accessible to a rat. This meant the passing of radical statutes compelling rat-proofing of all structures containing food, the demolition of all buildings such as stables, slaughter-houses, etc., which could not be made impervious to rats. It meant the destruction of the many floored back yards of San Francisco where rats could nest. It meant that no food nor garbage could exist in the city where a rat could have access to it. It will at once be seen that such results could only be obtained by the complete coöperation of every portion of the population. Rigid sanitary inspection must be made in every home and place of business. Consequently, the first step must be the formation of subcommittees of citizens in all lines of business and social activity, whose duty it would be to arouse all those within their spheres of activity to the importance of coöperation. This was done by personal contacts, much printed instruction, and addresses to large groups. The interest of the school children was obtained through talks on general hygiene and rat destruction. So successful was this propaganda on the receptive minds of these youngsters that woe betide the housewife if one of her children should find the garbage can uncovered on his return home from school.

COMMITTEE'S POWER: "GOVERNMENT BY DECREE"

It was found necessary to enact rigid ordinances covering effective rat-proofing, with severe penalties attached for any infraction thereof; and as the ordinances were formulated by the Executive Committee they were sent to the Board of Supervisors with instructions to pass them without delay. If this was "government by decree," the emergency was urgent and justified its exercise.

TRIBUTE TO LATE C. C. MOORE

To carry through its work it was essential that the Executive Committee should have leadership. It is fitting at this time, therefore, that tribute should be accorded to the chairman of the committee, the late Charles C. Moore, whose active citizenship is now but a grateful memory. He was a great citizen, forceful and efficient, yet tactful and diplomatic, an inspiration to his committeemen when, during the stress of the daily arduous duties, sometimes sheer exhaustion threatened energy and efficiency. In his daily talks to the various industrial committees he was earnest and convincing, though sometimes it was found necessary to scold and threaten the skeptical and obstinate. I well recall a meeting with a small group of machinery manufacturers. In explaining to them the effect of a federal quarantine, he took occasion to say, "Probably you do not realize what such a quarantine means. It means that each man in this room, and you are all millionaires, will go broke."

These meetings with the representatives of the mercantile and social activities of the city were daily addressed by the members of the Executive Committee, 162 such meetings being held in a period of six weeks' time.

FINANCIAL NECESSITIES

It was soon apparent to the committee that the appropriations from the Federal Government and the San Francisco Board of Health were inadequate to carry on the work, which had assumed such large proportions. At one time there were 919 men in the field—inspectors, rat catchers, and laborers. Early in February it was decided to appoint a Finance Committee to raise a sum of $500,000. That such a large amount did not prove necessary was due to the splendid coöperation of the citizens generally through the cleaning of their own premises. The amount actually collected, largely through assessment of the business and social groups, was $177,512, of which 19 per cent was returned at the end of the campaign. These assessments were levied in proportion to the estimated financial status of the groups assessed, and in almost all instances the assessments were considered just. It is interesting to observe that where argument was necessary to convince the reluctant, the fear of federal quarantine proved more potent than the danger of plague.

HOW APPOINTMENTS WERE MADE

In order to avoid any charge of political appointment the committee made no appointments, though pressure was frequently brought upon it, sometimes through some of the largest subscribers to the fund. All appointments were made by the federal authorities through Doctor Blue.

INCIDENCE OF PLAGUE IN THE 1907 OUTBREAK

The total number of human cases from the inception of the epidemic in May, 1907, was 160, the last one having occurred in February, 1908; but it was not until October that the last infected rat was found.

78 The Uplands.

(To be concluded)

CLINICAL NOTES AND CASE REPORTS

HYDRATION MADE EASIER

By Joseph E. Tillotson, M.D.
Colusa

PRIMITIVE man, stricken ill, received liquids in containers which nature provided — coconuts, gourds, eggs of the larger birds, shells and the human skull.[1] In the seventeenth century we find evidence of thought for his comfort in Green's list of 1668[2] . . . "fountain pots for refreshment by suction, the 'spout pots' for the same service by old people and invalids." Since then refreshment by suction has taken various forms, *i. e.*, the soft-drink straw. But for bedridden patients who may consume hot liquids as well as cold, the glass tube is used, crooked for convenience.

A step further in consideration of the patient's comfort and needs, and at the same time minimizing nursing attention, is the use of a long rubber tube connecting two conventional hospital glass drinking tubes. The patient has but to move his arm or hand to secure the means of alleviating his thirst. The accompanying drawing illustrates this drinking tube. The inset shows its component parts: two glass tubes and rubber tubing.



Fig. 1

By way of summary may be mentioned that constant need for fluids is made easily available. Important nursing care is accomplished with minimum nursing effort; where nursing facilities are limited, as in large wards, patients are self-contained in procuring fluids. Pneumonia patients, for instance, and others extremely ill and in dire need of fluids, find such requirement covered with conservation of their depleted energy.

Colusa Memorial Hospital.

MINERAL OIL AS A LAXATIVE*

By James W. Morgan, M.D.
San Francisco

THERE is perhaps no drug which has attained such a wide and universal currency for this purpose in the civilized world of today. Its acceptance is based on the belief that mineral oil is a bland and innocuous intestinal lubricant, while the numerous and considerable deleterious effects which may follow its continued administration have failed to be recognized.

In this paper attention will be drawn to the effects of mineral oil in disturbing normal physiologic processes, as well as to the pathologic changes which may attend its use.

The texts on pharmacology suggest no rational therapeutic basis for the use of liquid paraffin, the chemistry of which is, to say the least, uncertain.

The rectum is not a reservoir. Functionally it is but a short passage to the exterior.

The use of mineral oil as a laxative is open to severe criticism on the ground that it destroys the normal physiologic processes.

When mineral oil is present in the rectum complete evacuation is impossible.

The use of mineral oil was shown to be the cause of weight loss in children by Till and Dutcher.

Mineral oil, whether or not it is in complete emulsion, hastens the motility of the bowel contents in the small intestine and, as a consequence, digestion is incomplete.

There is clinical evidence that individuals who have taken oil over a long period of time suffer from "indigestion."

Mineral oil should never be given before or after operations on the rectum.

The use of mineral oil is often an indirect cause of pruritus ani.

Channon and Collinson proved that oil is absorbed from the gut and that it appeared in the livers of rats and pigs.

SUMMARY

A. *Physiologic Considerations:*

1. Mineral oil lubricates the rectosigmoid and makes a reservoir of the rectum.

2. Mineral oil makes complete evacuation impossible.

3. Mineral oil has a very deleterious effect on the nutritional economy of fat-soluble vitamins.

4. Mineral oil hastens the motility of the bowel contents and thereby prevents complete digestion.

5. Mineral oil may interfere with the process of absorption throughout the bowel.

B. *Pathologic Considerations:*

1. Mineral oil interferes with the healing of postoperative wounds in the anorectal region and may induce hemorrhage.

2. Mineral oil is often the indirect cause of pruritus ani.

3. Evidence is accumulating that mineral oil may be absorbed, producing pathologic changes in the liver and other abdominal viscera.

[1] Encyclopedia Britannica, 14th Edition, 7:663, 1929.
[2] Hartshorne, Albert: Old English Glasses, Edward Arnold, 1897.

*Note.—The first paper from the Phelan Fund of the University of California, "For the Improvement of the Comfort of the Bed-Ridden Patient," appears in the November issue of the *American Journal of Surgery*. The title is "Misgivings on Mineral Oil as a Laxative" and it is written by Dr. James W. Morgan, Instructor in Surgery, who, with Dr. J. B. deC. M. Saunders, was selected by Dean Langley Porter to do the research work.

CONCLUSIONS

The internal administration of mineral oil, either alone or in combination with other substances, may be attended by decided disadvantages. In view of the light-heartedness with which mineral oil has been prescribed as a laxative, I feel that this discussion is timely.

Fitzhugh Building.

INTRACRANIAL TUMORS

By HANS VON BRIESEN, M.D.
Los Angeles

IT has been well brought out that although few brain tumors are malignant, in the pathological sense of forming metastasis to other parts of the body, all of them are malignant in the sense of morbidity and death.

We know little of their etiology or prevention. Therefore, the first problem is a recognition of a tumor, and the second is its localization. That this last is difficult may be illustrated by several cases.

REPORT OF CASES

CASE 1.—This case was clinically a frontal lobe tumor. By "clinically" here is meant history and bedside examination. Figures 1 and 2 show internal hydrocephalus, and rule this out. Figure 3 shows erosion of the bone about the left internal auditory meatus, and with vestibulary tests establishes the diagnosis of left cerebello pontile angle tumor.

* * *

CASE 2.—This case was clinically a right cerebellar tumor. Ventricle studies, Figures 4 and 5, ruled this out, and we found we were dealing with a right cerebral tumor.

* * *

CASE 3.—This case could not be localized clinically. Study of the x-ray plates, Figures 6 and 7, shows a parasagital meningioma.



Fig. 1 Fig. 2 Fig. 3

Fig. 1.—Lateral encephalogram of Case 1 showing internal hydrocephalus.
Fig. 2 (Case 1).—Anterior posterior encephalogram showing internal hydrocephalus and with Fig. 1 ruling out bedside diagnosis of frontal lobe tumor.
Fig. 3 (Case 1).—Anterior posterior routine skull picture, showing erosion of left petrous bone, about the internal auditory meatus.



Fig. 4 Fig. 5

Fig. 4 (Case 2).—Obliteration of the right lateral ventrical, ruling out bedside diagnosis of cerebellar tumor.
Fig. 5.—Lateral view of Case 2.



Fig. 6



Fig. 7

Fig. 6 (Case 3).—Anterior posterior routine x-ray of case which was impossible to localize clinically, showing calcified meningioma high in the midline.

Fig. 7 (Case 3).—Lateral view showing thickening of skull and calcified tumor, at top of coronal suture.

Case 4.—The x-rays of this case have been lost; however, they show a marked internal hydrocephalus, similar to Case 1. The clinical diagnosis was basilar meningitis, with obstruction. At postmortem we found we were dealing with a cystic astrocytoma of the cerebellar vermis that might have benefited greatly by surgery.

These cases have illustrated several points, and without explanation in detail they are stated.

First: No surgical attack, with removal in mind, should ever be made without complete examination, air studies, careful and meticulous study of the regular x-ray plates, and, where possible, perimetric studies and vestibular tests.

Second: After increased intracranial pressure has set in, the picture is clouded by false localizing signs.

Third: With brain tumors, patients too sick to be operated are cases in which surgery must be given every consideration. Desperately ill patients, who would certainly die if only supportive treatment is given, can sometimes be saved by surgical intervention, and although this may often transfer the death from ordinary to operative mortality in the records, it will tend to reduce case mortality, which, in the end, is what we strive for.

Fourth: In dealing with brain tumors the diagnosis, localization, and surgical interference should be accomplished at once; delay being fatal in many cases because the compensation of the brain to the tumor may fail at any moment.

TREATMENT

There is no adequate medical treatment. Stated simply, surgery and radiation are the only methods, and they attack the two factors which make the tumors dangerous, that is, growth and reaction.

PROGNOSIS

Recently, a well-known and courageous colleague made the inquiry, if it might not be true that a number of the cases salvaged by surgeons are not a matter of taking "scrap heap common," and making it "scrap heap preferred." Is this true in the treatment of brain tumors? If one recalls the number of successful cases, especially among the slower growing types, it is obviously not true. There are many of these patients who can be restored to normal, and the attempt to do so should be made in all of them.

1930 Wilshire Boulevard.

NEUROFIBROMA OF THE RECTUM

By Montague S. Woolf, M.D.
San Francisco

ALTHOUGH visceral neurofibromata are not rare, a tumor of this nature in the rectum is excessively rare.

The commonest site of intestinal neurofibroma is in the wall of the stomach. It is usually designated as schwannoma in Continental literature, and is stated to arise from Schwann's sheath in Auerbach's plexus or from Raymark's fibers. The tumor may be mistaken for sarcoma, having a low grade of malignancy. It has no tendency to recur even after incomplete removal but, if left, may give rise



Fig. 1.—(A) Encapsulated neurofibroma. (B) Cut surface of A.

to widespread metastases in the liver. The location in the stomach is in the posterior wall.[1]

The mesentery may also be affected by a neurofibroma. In one case,[2] such a tumor, two inches in diameter, was formed of fibrous tissue with a nerve trunk running through it, causing pressure and distortion of the duodenum but no intestinal growth. If it occurs in the wall of the bowel, bleeding may result and blood be passed through the rectum.[3] In another case, "dozens of small white fibrous tumors about the size of millet seeds were seen all over the stomach," and "the vagi nerves were markedly affected from skull to stomach and at intervals had distinct fusiform swellings. The phrenic and sympathetics were similarly affected."[4]

Neurofibromata have also been described in the pharynx, gall-bladder, tongue, nose, and ureter.

REPORT OF CASE

J. F. McA, age seventy, went to a physician on account of dysuria and acute urinary distention, for which he was first catheterized three years previously. Later, during a digital investigation of his prostate, a rectal mass was discovered from which the patient had had no symptoms.

When he came under my care, a somewhat irregular mass was felt posteriorly, apparently between the rectal wall and coccyx. The examining finger could reach the upper limits. The mucous membrane was intact and moved within its normal range over the tumor. A biopsy was taken from within the rectum and pronounced to come from

1 Hosoi, K.: Neurogenic Appendicitis: Study of One Hundred Ninety-Five Cases of Appendicular Neuromas, Am. J. Surg., 22:428-446 (Dec.), 1933.

2 Dudley, G. S.: Visceral Neurofibroma, S. Clin. North American, 10:539-540 (June), 1930.

3 Cabot: Unusual Cause of Hematemesis (Case 18283), New England J. Med., 207:91-93 (July 14), 1932.

4 Shouldice, E.: Multiple Fibromata: Case with One Fibroma Enlarging Into the Stomach, Canad. M. A. J., 15:66-69 (Jan.), 1925. (Illustrated.)

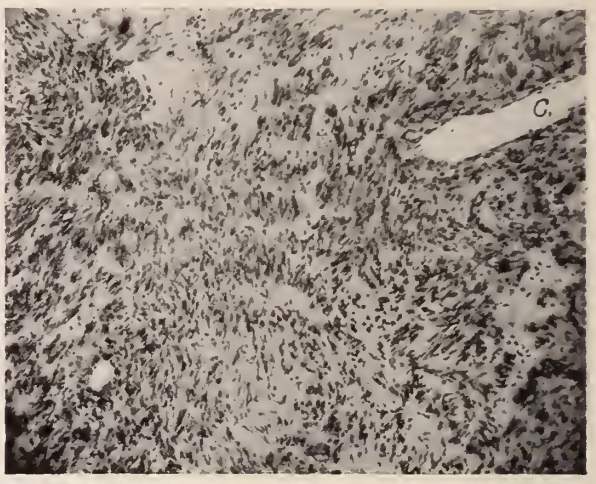


Fig. 2.—Microscopic section of neurofibroma, showing pallisade arrangement of cells.

a neurofibroma. A few days later the coccyx was removed and an encapsulated lobular firm tumor removed from within the rectal wall. Healing was uneventful. Before he left the hospital, Dr. Frank Hinman removed the prostate by the perineal route. The patient's convalescence from this was also uneventful.

Pathological Report, S. P. 35,1101:

Clinical Data. — Male, age seventy. Prostatism with hypertrophy of prostate. Tumor discovered during rectal examination. Posterior, not attached to mucosa, firm, slightly nodular.

Clinical diagnosis: Benign tumor.

Examination of Tissue. — Material: From retrorectal tumor.

Gross Description. — The specimen consists of roughly spherical, firm, coarsely lobulated, pale yellow-gray tumor mass, measuring 5.5 by 4.5 by 4 centimeters and weighing 35 grams. The tumor appears to be completely encapsulated by a thin fibrous covering. The specimen is accompanied by a small, one-centimeter nodule similar to the above. The cut surface is pale gray, contains a few small, smooth-walled cysts, and is made up of interlacing strands of fibrous tissue supporting a translucent gray tissue. Fixed in Zenker's and formalin.

Microscopic.—Multiple sections show the tumor to be made up of combed-out masses and cords of spindle-shaped cells, showing considerable palisading of the nuclei. A rare mitotic figure is found. PTAH stain shows considerable intercellular substance resembling collagen; and while many of the nuclei are spindle-shaped and show the square end resembling smooth muscle nuclei, the cells do not contain myoglia fibrils.

Diagnosis.—Neurofibroma.

384 Post Street.

PREGNANCY FOLLOWING OPERATION FOR CHRONIC INVERSION OF THE UTERUS

By Harold J. Gregg, M.D.
and
Fred C. Gregg, M.D.
Calexico

WE believe that a case report of pregnancy with a normal full-term delivery, following an operation for chronic complete inversion of the uterus, will be of interest because of its rarity.

In 1927 Miller,[1] in his article on pregnancy following inversion of the uterus, reviewed fifty-five such cases collected from the literature up to that

1 Miller, N. F.: Pregnancy Following Inversion of the Uterus, Am. J. Obst. and Gynec., 13:307, 1927.

time, and added one case of his own. Of these fifty-six cases, twenty-three were corrected by operation. Since his report, a search of the literature reveals case reports of four other cases of pregnancy following operative procedures for correction of inversion of the uterus, making a total of twenty-seven cases.

We wish to add the following case to those already reported.

REPORT OF CASE

History.—Mrs. L. W., age twenty-seven, para II. Her first confinement, which occurred in 1930, was normal in all respects. The second birth, following normal pregnancy and delivery, took place approximately two years later in November, 1932. According to the history, as given by the patient, the duration of labor was eleven hours, with delivery of placenta one-half hour later, following hypodermic injection (presumably pituitrin), and exertion of considerable traction on the cord. No pressure was made on the fundus. At the time of delivery of the placenta, she experienced severe pain in the pelvis, followed by profuse vaginal bleeding. She remained in a semiconscious condition for six or seven hours, and was given several hypodermic injections and hypodermoclysis. Upon regaining consciousness she had considerable pain in the left lower quadrant for twelve hours, which was finally relieved by drugs. There was no evidence of sepsis during the puerperium, and the lochia was normal. The first intimation she had of any abnormality was when she arose on the eighth postpartum day, and felt a tumor protruding from her vulva. Her attending physician, who was called at this time, advised her of the nature of the condition, and told her an operation would be necessary later to correct it. During the following six months the uterus would protrude through the vulva with any straining, such as occurred during evacuation of bladder or bowels. Several months following her confinement, she had a vaginal hemorrhage induced by sexual intercourse, with bleeding continuing over a period of two days. Previous to that she had had slight vaginal bleeding, accompanying protrusion of the womb. Her child continued on the breast for a year and five months, with no establishment of menstruation until after the operation for correction of the inversion which was performed a year and six months following childbirth.

In February, 1934, she reported to us with the above history, seeking our advice as to treatment.

Findings and Treatment.—Examination revealed an easily bleeding mass about the size and shape of a completely involuted uterus hanging in the vagina. The fundus was not in its normal position. A diagnosis of complete chronic inversion of the uterus was made, and operation for its correction advised. A Spinelli operation was performed in March, 1934, consisting, briefly, of an anterior colpotomy with anterior median incision through cervix and fundus, followed by digital reinversion of the uterus with restoration of normal relationship between mucosa and serosa. The uterine incision was closed in the usual manner, the womb slipped back into the abdominal cavity, and the colpotomy wound was sutured. The postoperative course was uneventful, except for a slight hemorrhage on the sixth postoperative day. She remained in the hospital two weeks.

Course.—Examination one month later showed the uterus to be in its normal position and the cervical and colpotomy wounds healed. Five weeks postoperatively she had her first menstruation since confinement, which was normal in amount of flow and duration. She continued menstruating regularly until December 5, 1936. On September 7, 1937, she came to the office for an antepartum examination, with nearly a full-term pregnancy, the date of expectation being September 12. On September 11 she began losing amniotic fluid, and this continued in small amounts until her delivery on September 14 of a normal eight-pound child, following two hours of labor. The third stage of labor was characterized by a small hemorrhage, which was controlled by massage of the fundus and an injection of one-half cubic centimeter of obstetrical pituitrin. The placenta was delivered after fifty minutes, with the aid of slight pressure on the fundus and very gentle traction on the cord. The subsequent course was uneventful. Examination one month postpartum showed the uterus to be nearly completely involuted and normally anteverted with moderate retroplacement. Examination of the cervix by speculum showed it to be in good condition with no lacerations. There was a slight linear indentation on its anterior lip, indicating the location of the old operative scar.

COMMENT

There is a difference of opinion regarding the management of pregnancies following operation for correction of these cases.

Miller, in the article previously referred to, states that "the danger of ruptured uterus in subsequent pregnancies where the original lesion was corrected by operative means is greatly exaggerated." Other writers believe that cases that have had rather extensive operative procedures on the uterus itself should preferably be delivered by abdominal cesarean section. The only case reported of uterine rupture during a subsequent labor is that of Barrows.[2] This was a case for which a Spinelli operation had been performed for an inversion of the uterus ten days postpartum. Two years later the patient delivered a stillbirth, following twelve and one-half hours of moderate labor. Three hours later she went into shock, when a diagnosis of ruptured uterus was made, which, upon operation, was found to have a rent through the upper half of the old operative scar. Barrows reports that postmortem examination showed areas of calcification in the old scar, evidencing infection of the scar following the Spinelli operation.

It will be noted that since this case was originally operated on ten days postpartum, it would probably come under the heading of subacute inversion. We believe that infection of the uterine wound would be more apt to occur in such cases of subinvolution of the uterus than would be probable in cases following operation where complete involution had taken place.

It is our opinion, after a study of the literature concerning these cases, that conservatism in the handling of subsequent pregnancies is justified in most cases.

218 Dool Building.

2 Barrows, D. N.: The Treatment of Recent Puerperal Inversion of the Uterus, with a Report of Five Cases, Am. J. Obst. and Gynec., 27:105-108 (Jan.), 1934.

Medical Supplements in the Press.—Two county societies have recently collaborated in the publication of medical supplements in their local newspapers. On October 25 the Nassau County Medical Society, Mineola, New York, published a health section of forty-eight pages in the Nassau *Daily Review-Star* and on October 30 the Wayne County Medical Society, Detroit, published its second annual medical supplement in the Detroit *Free Press*. Both supplements were profusely illustrated and the editorial content was of a high order. Both were published in tabloid form with original front-page layouts, the Nassau society using an interesting arrangement of photographs and the Wayne County Society using an original drawing. Not only were the activities and functions of the local societies and the American Medical Association described in both supplements, but a wide variety of interesting articles on all phases of medicine and health were used. Such supplements, properly prepared—as these two were—provide an excellent medium of public education in matters vital to health of the individual.—*Journal of the American Medical Association*, November 12, 1938.

BEDSIDE MEDICINE FOR BEDSIDE DOCTORS

An Open Forum for brief discussions of the workaday problems of the bedside doctor. Suggestions of subjects for discussions invited.

THE ORIGIN AND TREATMENT OF ANORECTAL FISTULAE

I. SURGICAL ANATOMY AND PATHOLOGY

PAUL C. BLAISDELL, M.D. (102 North Madison Avenue, Pasadena).—We, as surgeons, are prone to skip over topics on pathogenesis for interest in the more practical aspects sought under "treatment." This might be a proper conservation of time and energy, did not a correct conception of pathogenesis at least occasionally hold some secret of, and thus predicate, adequate clinical care. Such is the case with rectal fistulae, and when one adds thereto the general lack of understanding of the anatomy involved he has rather complete explanation of commonly poor fistula surgery, as revealed by the cold facts.

Nearly all anal fistulae originate as infections in the crypts of Morgagni. This fact is not only of pathogenic, but also of surgical importance, for successful fistulectomy necessitates finding the internal opening which, in turn, is largely dependent on knowing where to look for it. To be exact, over 98 per cent of our own cases have been found directly traceable to crypts, and less than 2 per cent to posterior fissures. We have seen primary internal openings higher up only in connection with cases of lymphogranuloma inguinale and impalement injuries, both rare in private practice. Secondary openings, of course, may occur higher, due either to rupture of the antecedent abscess, or to injudicious probing or trauma.

Now in the human there have been demonstrated epithelial lined ducts, regarded as the remains of complex glandular organs found in rabbits and dogs, which open into the crypts and thus afford a ready path for infection from the crypts with their constant stasis of infected material, into the wall of the anal canal, or through it to the surrounding tissue. The sequence of events, then, in the formation of a fistula is stasis of fecal matter in deep and poorly drained crypts: infection of the blind ducts leading outward from the crypts with penetration through small defects in the epithelial lining of these ducts, and burrowing into the surrounding tissue to form an acute abscess. With the opening of the abscess either spontaneously or by incision, either through the skin or elsewhere in the mucous membrane, a complete fistula immediately exists from the internal opening to the point of opening of the abscess. This fistula fails to heal permanently because of constant reinfection from the rectum through the preformed tubules with their lining of epithelium: if it does heal temporarily the patient is subject to formation of another acute abscess with further extension of the fistula. Only complete operative eradication of the whole tract will effect cure.

Let us introduce now Exhibit "A," to see how well these simple facts of pathogenesis are understood in relation to their important practical application. We questioned forty consecutive patients at a large charity institution who had rectal fistulas, and who gave a history of having had the acute abscess (stage) incised by physicians, until we found one who had been warned by his physician that a fistula would, or even might develop, following the abscess.

That is, thirty-nine out of forty patients whose acute abscesses were incised, were dismissed by the operating physician, all assuming that they were cured and would have no further trouble, an impression the more easily given unwarranted credence because of the tremendous relief from pain following simple incision. But one patient, therefore, out of forty received adequate advice or treatment, and the true nature of the condition dawned upon all the rest only after months and years of continuous or recurrent difficulty with their residual fistulae. We say months and years: the average length of time between incision of the abscess and the operation for the fistula was four and six-tenths years!

Thus it is essential, we say, to understand the pathogenesis of anal abscesses and fistulas and their relation to each other; to appreciate that the former are entirely different entities than boils and superficial abscess elsewhere, and that simple incision never ends their story. It is a sad mistake to have four and six-tenths years of recurrent or continuous trouble bring gradual and bitter realization of the physician's ignorance and the patient's true condition: these patients with acute perianal abscesses should be informed not that they "may have" or "will have" a fistula, but that they have a fistula and that they will continue to have this fistula until provision is made for its operative eradication either at the time of incision and drainage of the abscess, or at a later date.

Rather than reiterate all that has been said elsewhere in the literature, we choose to emphasize but few salient points from our own experience. Another such item of pathology, pertinent from a clinical standpoint, is the fact that these fistulas are not just artificial passageways, but, being remnants of acute or chronic infection, are surrounded by appreciable scar tissue. That is, exclusive effort is often made at operation to trace the passageway by various means, whereas tracing the tract by its scar tissue is usually easier and more effective. This is accomplished by palpation, if performed correctly. Using the forefinger alone in the anal canal, one gains little more than a sense of warmth; if, however, the thumb be opposed to it, on the outside, the scar tissue can usually be easily felt and traced. Using this maneuver will often locate sub-

mucous and other extensions, missing of which is a common source of recurrence. When all the scar tissue is removed and the structures feel uniformly soft between the forefinger and thumb, as they are swept around, the fistula is eradicated. By this means, also, one is kept continuously informed of the location of structures important to preserve, and the relation of the tract to them.

Understanding of the surgical anatomy involved is even more essential than a knowledge of pathogenesis and effects of ignorance even more disastrous. Cases of postoperative total incontinence are common, unforgivable, and tragic. We have operated on four such during the past year, and these remedial plastic operations are difficult of successful outcome. More common are the cases of relative incontinence involving limited control, particularly regarding seepage of fluid or passage of gas. Proctologists see quite a few of these cases and encounter not a little hesitation toward rectal surgery because of occurrences among friends of prospective patients. While it is true that many of these cases of relative and total incontinence are due to the vicious practice of postoperative packing, from our observations most of them have been due to injudicious surgery from ignorance of the surgical anatomy of the region. While even more important, from the standpoint of actual numbers of patients involved, the same factor is responsible for a large per cent of unnecessary recurrences.

In reviewing one hundred consecutive fistula operations, we found that 10 per cent of them had been previously unsuccessfully operated elsewhere. Translated into avoidable days of disability, of added suffering and expense, this figure is unpleasant to contemplate. Born of righteous fear of injury to the sphincter mechanism and of unfamiliarity with the applied surgical anatomy in relation to fistulectomy, too often the choice is made between unguided radical surgery with resultant degrees of incontinence, on one hand, or timid surgery with high recurrence rate, on the other. In ignorance of what and where and how it is safe to cut, one avoids incontinence only to stumble far too frequently into the pitfall of avoidable recurrences.

Much of the fault for this state of affairs must be laid at the door of the proctologist, for while each proctologist has learned by exceptional experience the practical surgical anatomy adequate for his own use, his written formulations on which others must depend for guidance have proved, in many respects, inadequate and confusing.

For example, one can read that the relationship of fistulas to the muscles comprising the sphincter mechanism is such that it is usually necessary in eradicating the fistula to sever only part of the external sphincter; or similarly elsewhere that the whole muscle is usually involved; that fistulae may or do not course deep to the internal sphincter. If one believes that continence is chiefly dependent upon the external sphincter, he can find support for his view in the literature, as can one who has the far different impression that it is chiefly dependent upon the internal sphincter, or again upon a composite structure—the anorectal ring. One proctologist states that he has severed the entire sphincter mechanism six hundred times, while another states that fistulae with relationships necessitating such treatment "are, fortunately, rarely seen even in a large experience," and that if the whole sphincter mechanism be entirely severed, even in stages, that function would be definitely impaired. There are differences as to what can safely be done in one stage, and what should be done in two; and frequently no mention at all of this or other disputed points. There are differences of opinion as to the safety of procedure in the posterior quadrant, and as to its relative safety as compared with the lateral and anterior quadrants.

Much of misstatement and confusion has been due to erroneous assumptions of surgical anatomy based on gross inaccuracies of descriptive anatomy handed down from textbook to textbook. For example, most of the above phases of surgical anatomy have been discussed in terms of the external and internal sphincter muscles, the two taken for granted as readily defined entities—if one may judge both by available illustrations, and common and familiar usage.

On the contrary, from our own numerous autopsy dissections, from paraffin sections of the region cut and studied by us, and from the correlation of these with clinical experience, and with special attention to the point, we are convinced that these structures are so difficult of uniform clinical demonstration as to be almost useless for the purposes mentioned. How many surgeons who read these lines and who do fistula surgery feel they could identify accurately both of these muscles during the course of such operation?

From these and other considerations it is apparent that a more easily acquirable and readily usable conception of the surgical anatomy of the region is essential, and based on accurate descriptive anatomy. The topic is too long for clarification in the space available here, but it will soon be separately presented by us elsewhere in detail.

* * *

II. SYMPTOMS

Gordon F. Helsley (800 Monterey Boulevard, San Francisco).—Gant[1] devotes eighty-six pages to the subject of anorectal fistula and of these only two pages to symptoms. Discussion of symptoms is ordinarily practically limited to the painful swelling of the initial abscess and recurrent closure. Complicated and unusual fistulae, particularly tuberculous, receive more attention than their frequency warrants.

The symptom of pain with defecation is mildly present in most cases of simple fistulae. In incomplete external fistula this pain is usually absent. A fistula with an external opening manifests itself by a purulent discharge, usually slight, often foul-smelling. This drainage is frequently totally interrupted by spontaneous closure, and then the same symptoms appear as in all pararectal abscesses. Before swelling, pain, and fever are far advanced, spontaneous or artificial reopening occurs, with prompt relief.

However, in most cases the drainage is probably chronically imperfect. I have seen, as a result of

[1] Diseases of the Rectum, Anus, and Colon.

extirpation of these fistulae, the same improvement that we expect from the elimination of any focus of infection. Thin patients gain weight. Myalgias, neuralgias, and arthralgias of wide distribution disappear. So the symptomatology of anorectal fistulae includes for me consideration of the general malign results of focal infection.

The presence of a fistula is a psychic insult; its cure is a psychic relief. This effect is inextricably mingled with the general effects of the removal of an infected focus.

Escape of gas and feces through a fistula, the classical symptom of a complete fistula, is not often seen. Woe betide the examiner who concludes, because there is no such escape and because a probe fails to pass through into the rectum, that the fistula has no internal opening. Palpation of the tract and the indurated internal opening is valuable. Visual examination through a sphincteroscope is always to be done. With the instrument passed well in and then slowly withdrawn while a weak solution of gentian violet is injected into the external opening, the internal opening will be demonstrated if there is one, and there almost always is.

* * *

III. TREATMENT

William H. Daniel, M.D. (911 Wilshire Medical Building, Los Angeles).—The successful treatment of anal fistulae consists in the removal of all infected tissues, with preservation of the normal function of the rectal outlet. The length of this paper does not permit the detailed description of the treatment of all types of anorectal fistulae, and this discussion will be limited to the more common forms which are designated "fistulae in ano." With few exceptions, anal fistulae result from the rupture or incision of abscesses which arise from the extension of infection from an anal crypt or fissure. Primarily, the management of a fistula begins with the diagnosis of an abscess. Every abscess should be drained by incision as soon as the presence of pus is determined. It is not good surgical practice to allow an abscess to continue to burrow and extend into important tissues while waiting for it to "point."

Depending upon the nature of the abscess from which the fistula results, the fistulous tract may be superficial to the external sphincter muscle; may penetrate the muscle; may pass entirely above the muscle; may be straight; may be tortuous; and even may extend across the posterior or anterior raphe to the opposite side. It is always necessary to determine, before operation if possible, the relation of the external to the internal opening. Many times the fibrous tract may be outlined by palpation, and the internal opening may be felt in a depression in the anal wall corresponding to a recent or chronic fissure, or ulcer. A fine malleable probe will often follow the tract with little difficulty and with slight discomfort to the patient. If a probe is not easily passed, the injection of a staining fluid, as methylene blue, may establish the presence, and frequently the location, of an internal opening. When the external opening is some distance from the anal margin, and the internal opening is not readily located, an x-ray plate, taken following the injection of bismuth paste, or lipiodol, is valuable. In some cases, neither the probe nor the staining solution will traverse the whole tract, due to an angulation or other occlusive process. If the internal opening has been found, a bent probe may be passed from within outward and the tract determined in this manner. Since the majority of fistulae originate in the posterior quadrant, the internal opening should be found in the posterior midline, or slightly to either side, corresponding to the five, six, and seven stations of the clock dial.

The cure of a fistula depends upon the eradication of the internal opening and all infected tracts and sinuses. In plain words, a tunnel from the skin to the lumen of the bowel must be converted into an open trench. The relations of the external and internal openings, and the intervening tract having been determined, the operative procedure is varied according to the size and location of the fistula, and the amount of involvement of the sphincter muscle. As a rule, an incision is made through the skin to circumscribe the external opening, deepened into the fatty layer beneath, and the tract followed by freeing all tissues from the fibrous tube. As the dissection nears the anal margin, the sphincter muscle must be carefully separated from the fistula wall until it is determined that the tract traverses, or passes above, the muscle at or nearly at a right angle. If only the superficial portion of the muscle is involved, the incision may be carried through it without fear. When the tract passes above the external sphincter, and only a moderate amount of tissue has been sacrificed in the dissection, the muscle is incised as in the more superficial type. In those cases in which the tract and its extensions involve a greater area, and a large wound results from dissection, it is safer to place a linen ligature around the muscle at the primary operation. As the wound heals, the new tissue formed prevents the muscle-ends from retracting and thus being united by a large amount of inelastic scar tissue, which may cause a partial incontinence. The bridge of muscle thus surrounded by the linen is incised under local or other anesthesia when the wound has partially healed. The usual time is within ten days to three weeks. The use of the linen ligature is also valuable when there are two separate and distinct fistulae which involve different parts of the anal structure. One fistula may be completely removed, and the two-stage procedure used for the second one. If there are more than one external opening communicating with one internal opening, it is best to connect all the external openings before incising through the internal opening. The dissection of all the fibrous tissue is carried out as in the removal of a single fistula. In a few cases the tract is superficial to all muscles, and a simple removal of all infected tissue results in a cure. All scar tissue in the anal canal surrounding the internal opening should be removed. To prevent the possibility of incontinence it is important to preserve the large nerve trunks which traverse the loose tissues surrounding the anus and rectum. It is advisable to remove all other pathology, as hemorrhoids, papillae, and crypts, at the primary operation.

In all fistula wounds the skin margins should be excised one-half to one inch from the underlying

tissue, and the edges beveled. This procedure provides ample drainage, makes packing unnecessary, and allows healing to proceed from the bottom, with a resultant small wound covered by normal integument. As a general rule, clean excision of all infected tissue is advisable. The mere incision of the roof of a fistula leaves most of the fibrous tract and results in a depressed scar which is, at times, quite unsatisfactory to the patient.

When the fistula is located in an anterior quadrant, especially in women, greater care must be exercised to prevent loss of muscle function. It is probably safer to use the two-stage procedure, especially when the dissection involves more than a small amount of tissue. In some cases in women, partial incontinence may follow incision of the muscle under any procedure, and the attempt is made to cure the fistula without severing the sphincter muscle. The fistulous tract is dissected out in the usual manner, but is severed at the anal wall. The scar tissue in the anal canal containing the internal opening is dissected from the skin and mucous membrane. The healthy mucosa is then freed sufficiently from above to be united, without tension, to the skin margin. The internal opening is thus obliterated by being covered by mucous membrane.

The after-care is very important. Packing, if used at the operation, is removed by the second or third day, and the wound is not repacked. The patient is allowed to be up, take sitz baths on the second day, and the bowels are allowed to move on the third day. Vaseline dressings are customary until the patient is up and about, and then the wound is kept dry by dusting with zinc stearate, thymol iodid, or B. F. I. powder. The finger is passed over the base of the wound every few days to prevent bridging. Excessive granulations are removed with the sharp scissors, or by the application of silver nitrate solution of 5 or 10 per cent.

Contrary to popular opinion, very few fistulae are tuberculous, and occur in patients with tuberculosis of some other region. Although patients suffering with pulmonary tuberculosis are frequently affected with abscesses and fistulae, only a small percentage of these lesions are proved to be tuberculous. Surgical treatment is indicated as in any other individual, with the exception that, in the terminal cases, drainage only is provided.

Living Costs.—Household operation costs are higher in small southeastern cities than in similar cities in other parts of the United States, on the basis of a study just completed by the United States Bureau of Home Economics of the United States Department of Agriculture. The data cover a twelve-month period in 1935-1936.

In each income bracket from $250 to $5,000, the 1,105 white nonrelief families whose expenditures were analyzed in four southeastern cities—Albany and Griffin, Georgia; Gastonia, North Carolina; and Sumter, South Carolina—averaged spending more for household operation than did, for example, 1,488 families in four northwestern cities similarly studied—Astoria, Eugene, and Klamath Falls, Oregon, and Olympia, Washington.

Here is how the household operation costs went up in the Georgia and Carolina cities as income rose from $250-$499 to $4,000–$4,999: $67, $101, $131, $168, $190, $224, $260, $285, $326, $378, $471, $505, $584. For similar income groups, the household operation expenses in the Washington and Oregon cities ran: $61, $94, $100, $107, $122, $148, $159, $177, $198, $214, $270, $356, $432.

Included in "household operation" were fuel, light, and refrigeration; paid household help; laundry supplies and laundry sent out; telephone; postage, stationery and pencils; express, drayage, and moving of household goods; water rent; and such incidental items as paper napkins and towels, cut flowers, lawn seeds and plants.

In all but one of the income brackets ($2,250 to $2,499), the northwestern families averaged spending more on automobiles than the southeastern.

The automobile outlay in the southeastern cities ranged from an average of $10 per family per year in the lowest income bracket to $342 in the highest; in the northwestern cities from anaverage of $40 per family per year in one of the lower brackets to $505 in the $4,000 to $4,999 bracket.

Food, biggest item facing the man or woman who has to make the family living, showed an average expense ranging from $218 per family per year at the lowest income level to $828 at the highest in the southeast cities. Clothes, found to be a consistently sizeable item in all the studies of southeastern families—city, village, and farm—ranged from an average of $34 per family per year at the lowest income level to $437 at the highest. The southeastern families had higher average expenditures for clothes than for cars; the northwestern, higher expenditures for cars than for clothes.

For housing, which included all expense during the year on all homes occupied by the family (vacation homes as well as the year-round dwelling) and lodging of family members while away from home, the Georgia and Carolina families spent an average of $70 at the lowest income level and $394 at the highest. On furnishings and equipment—items such as refrigerators, washing machines, pots, pans, mops, washtubs, glass, china, silver, floor coverings, bedding, curtains, furniture, luggage, lamps, and furniture repairs—the outlay ranged from an average of $16 per family per year in the lowest income bracket to $184 at the highest.

Medical care expenditure in these southeastern cities went up as the income level rose, and ranged from an average of $17 per family yearly at the lowest income level to $320 at the highest. For the services of the barber, the beauty shop, and toilet preparations, the families spent an average of $11 per family per year at the lowest income level and $79 at the highest. On recreation, which included paid admissions, fees and supplies for games and sports, radios and musical instruments, toys and pets and dues to social organizations, the families spent from an average of $5 each per year at the lowest income level to $217 at the highest.

The remaining columns of the family expense book, when averaged for the various income classes, showed the following ranges from low to high income levels: Tobacco, from an average of $13 per family to $53; reading, from $1 to $31; education, from $2 to $82; gifts and community welfare, from $7 to $220; travel other than by car, from $2 to $8; other items, from $3 to $51.

At each income level, averages were based on all families, whether or not they spent any money on the item indicated. For instance, a few families that had no medical care whatever during the year were included in computing the medical care averages.

The 138 families whose incomes fell in the class $1,750 to $1,999 (the first income class in which the average income exceeded the average outlay) spent their money as follows: An average of $1,760 spent, of which $513 went to food; $189 to clothing, $220 to housing; $260 to household operation; $85 to furnishings and equipment; $170 to automobile; $5 to other travel and transportation; $41 to personal care; $81 to medical care; $54 to recreation; $38 to tobacco; $17 to reading; $11 to education; $67 to gifts and community welfare; and $9 to other items.

Health! Thou most august of the blessed goddesses, with thee may I spend the remainder of my life, mayest thou benignly dwell with me; for if there be any pleasure to be derived from riches, or if there be any delight bestowed on men, or respite from pains, with thee, blessed health, all these flourish and beam effulgent-like the spring arising from the graces; without thee no one is happy.—Ariphron.

CALIFORNIA MEDICAL ASSOCIATION

This department contains official notices, reports of county society proceedings and other information having to do with the State Association and its component county societies. The copy for the department is submitted by the State Association Secretary, to whom communications for this department should be sent. Rosters of State Association officers and committees and of component county societies and affiliated organizations, are printed in the front advertising section on pages 2, 4 and 6.

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OFFICIAL BUSINESS

ASSOCIATION ACTIVITIES

1. *Call for Special Session: House of Delegates of the California Medical Association.*
2. *Members of House of Delegates, Thirty-Fifth Annual Session at Pasadena, and of Special Session at Los Angeles, December 17 and 18, 1938.*
3. *Special Committee on Medical Service Plans: A Progress Report.*
4. *Council Minutes, 268th Meeting, Held on November 12, 1938.*
5. *Executive Committee Minutes, 156th Meeting, Held on November 12, 1938.*
6. *Medical Service Plans.*

DEPARTMENT OF PUBLIC RELATIONS

1. *Itinerary of President Roblee and Party: A Visitation Tour in Northern California.*
2. *Medical-Hospital Care—California Plan.*
3. *Proposed Chiropractic Initiative.*

CALL FOR SPECIAL SESSION*

HOUSE OF DELEGATES OF THE CALIFORNIA MEDICAL ASSOCIATION

San Francisco, November 25, 1938.

Notice of Special Meeting

To the Members of the House of Delegates of the California Medical Association:

The Council of the California Medical Association at a special meeting thereof, duly held on Saturday, the twelfth day of November, 1938, at San Francisco, California, by the affirmative vote of all members present, constituting more than two-thirds of all of the members of the Council, adopted the following resolution calling a special meeting of the House of Delegates:

Resolved, That a special meeting and session of the House of Delegates of this Association, California Medical Association, is hereby called to be held at 1925 Wilshire Boulevard, in the city of Los Angeles, State of California, on Saturday, the seventeenth day of December, 1938, at the hour of 9 o'clock a. m. for the purpose of:

(*a*) Considering and acting upon any plan or plans presented by the Council for prepayment of, or pooling funds for, health services and care, and for the establishment of a state-wide system to render medical service and hospital care.

(*b*) Considering and acting upon a proposal to amend Chapter II of the By-Laws of the Association relating to professional ethics; and

(*c*) Considering and acting upon the formation and organization of a corporation and any other matters ancillary or related to any or all of the foregoing purposes as may be presented by the Council; and be it

Further Resolved, That George H. Kress, the Secretary of this Association, be and he is hereby directed to prepare a written notice setting forth the time and place of meeting and the purposes and objects thereof and transmit the same, signed by him and attested by the President, the Chairman of the Council, and the Speaker of the House of Delegates, to each member of the House of Delegates in the manner and within the time required by the Constitution of the Association.

* * *

Secretary's Notice.—Pursuant to said resolution of the Council, you and each of you will hereby please take notice that a special meeting of the House of Delegates of the California Medical Association will be held at 1925 Wilshire Boulevard, in the city of Los Angeles, State of California, on Saturday, the seventeenth day of December, 1938, commencing at the hour of 9 o'clock a. m. of said day, and that the objects and purposes of said special meeting are those objects and purposes set forth in the resolution of the Council, above quoted.

The delegates and alternates who shall be eligible to be seated in the House at said special session shall be those delegates and alternates who were eligible to serve on the first day of May, 1938. (At the California Medical Association annual session at Pasadena.)

GEORGE H. KRESS,
Secretary of the California Medical Association.

Attest:

WILLIAM W. ROBLEE,
President of the California Medical Association.

LOWELL S. GOIN,
Speaker of the House of Delegates of the California Medical Association.

KARL L. SCHAUPP,
Chairman of the Council of the California Medical Association.

MEMBERS OF HOUSE OF DELEGATES*

Thirty-Fifth Annual Session at Pasadena
May 9–12, 1938

TOTAL DELEGATES (154)
DELEGATES EX OFFICIO (23)

William W. Roblee, Riverside.....President
Charles A. Dukes, Oakland.....President-elect
Howard Morrow, San Francisco.....Past President
Lowell S. Goin, Los Angeles..Speaker of House of Delegates
John H. Graves, San Francisco.....Vice-Speaker of House of Delegates
George H. Kress, Los Angeles....Secretary-Treasurer-Editor
C. L. Emmons, Riverside (1938).....Councilor 1st District
Carl R. Howson, Los Angeles (1939)..Councilor 2nd District
Louis A. Packard, Bakersfield (1940).....Councilor 3rd District
Axcel E. Anderson, Fresno (1938).....Councilor 4th District
Alfred L. Phillips, Santa Cruz (1939)..Councilor 5th District

* These are the delegates and alternates who were listed in the Supplement of the April, 1938, issue of CALIFORNIA AND WESTERN MEDICINE, on page 8, for service at the Pasadena annual session, May 9–12, 1938, and who "hold over" for the special session of the California Medical Association House of Delegates, at Los Angeles, on December 17 and possibly December 18. Additional alternates may be elected.

* See also editorial comment on page 425, and other items on pages 499–503. Also following items in Council Minutes: Item 9 on page 474; Item 12 on page 475; and Item 14 on page 476. News release of November 14 appears on page 478.

Karl L. Schaupp, San Francisco (1940).....Councilor 6th District
Oliver D. Hamlin, Oakland (1938).....Councilor 7th District
Frederick N. Scatena, Sacramento (1939).....Councilor 8th District
Henry S. Rogers, Petaluma (1940).....Councilor 9th District
Harry H. Wilson, Los Angeles (1938)....Councilor-at-Large
C. O. Tanner, San Diego (1939).....Councilor-at-Large
William H. Kiger, Los Angeles (1940)....Councilor-at-Large
P. K. Gilman, San Francisco (1938).....Councilor-at-Large
T. Henshaw Kelly, San Francisco (1939).....Councilor-at-Large
Junius B. Harris, Sacramento (1940).....Councilor-at-Large
George G. Reinle, Oakland.....Chairman, Committee on Public Relations

ELECTED DELEGATES

Alameda County (11)

Delegates	*Alternates*
A. A. Alexander	T. F. Bell
Dorothy Allen	W. G. Donald
Leonard Barnard	Fred Ewing
Clarence A. DePuy	Lloyd Kindall
John Dougherty	George Nesche
Edward N. Ewer	Robert S. Peers
Sumner Everingham	T. Eric Reynolds
H. Gordon MacLean	A. C. Seifert
Frank R. Makinson	D. D. Toffelmier
George G. Reinle	H. G. Trimble
H. J. Templeton	H. H. Appeldorn

Butte County (1)

Joseph O. Chiapella	N. T. Enloe

Contra Costa County (1)

Sol N. Weil	L. H. Fraser

Fresno County (3)

G. W. Walker	C. I. Pendergrass
E. J. Schmidt	S. A. Quimby
R. S. Scott	B. Sorauf

Humboldt County (1)

Allan Watson	Curtis Lane Falk

Imperial County (1)

L. C. House	Phillip Hodgkin

Kern County (1)

C. S. Compton	F. J. Gundry

Kings County (1)

P. K. Edmonds	Name not received

Lassen-Plumas-Modoc Counties (1)

Name not received	Name not received

Los Angeles County (45)

L. A. Alesen	F. X. Ammann
E. Vincent Askey	C. Max Anderson
Samuel Ayres, Jr.	V. L. Andrews
Wilbur Bailey	A. A. Blatherwick
Harold Dewey Barnard	Lewis P. Bolander
Karl M. Bonoff	Henry T. S. Bonesteel
T. D. Caruso	H. B. Breitman
H. L. Charles	E. M. Burns
Fred B. Clarke	O. W. Butler
Walter R. Crane	Donald Cass
John W. Crossan	R. Manning Clarke
William H. Daniel	A. B. Cooke
Edward B. Dewey	Cyril B. Courville
George Dock	Charles H. Cowgill
Wallace Dodge	Egerton Crispin
Ralph B. Eusden	R. L. Cunningham
Alvin G. Foord	Wirt B. Dakin
Henry C. Gernand	Kenneth S. Davis
Orrie Ghrist	John B. Doyle
V. J. Keating	Roy E. Fallas
E. Eric Larson	William V. C. Francis
William H. Leake	John D. Gillis
George D. Maner	Leland Hawkins
William R. Molony, Sr.	Charles M. Hayes
E. Earl Moody	Malcolm R. Hill
Thomas Chalmers Myers	A. B. Hromadka
John W. Nevius	Morrill L. Ilsley
John P. Nuttall	Isaac H. Jones
Frank W. Otto	W. E. Macpherson
Charles E. Phillips	Orville Meland
Sterling N. Pierce	Robert J. Moes
F. M. Pottenger, Jr.	George H. Patterson
H. A. Putnam	Paul A. Quaintance
Robert E. Ramsay	Marcus Rabwin
E. T. Remmen	Oscar Reiss
John C. Ruddock	Paul B. Roen
Philip Stephens	H. E. Schiffbauer
F. C. Swearingen	V. DeMott Sedgwick
R. G. Taylor	Kenneth E. Smiley
Roy E. Thomas	Willard Stone
Donald G. Tollefson	Roy A. Terry
George D. Wells	H. D. Van Fleet
Walter Wessels	Harry J. Wiley
Howard F. West	Burnett W. Wright
A. Herman Zeiler	Charles S. Young

Marin County (1)

Anne H. Brady	Carl W. Clark

Mendocino-Lake Counties (1)

Delegates	*Alternates*
R. A. Cushman	Thomas P. Hill

Merced County (1)

E. A. Jackson	A. C. Atwood

Monterey County (2)

James H. McPharlin	W. H. Farr
Mast Wolfson	J. A. Merrill

Napa County (1)

George I. Dawson	Dwight H. Murray

Orange County (3)

G. Wendell Olson	Milo K. Tedstrom
Dexter Ball	Harold F. Gobar
Harry Huffman	Merrill Hollingsworth

Placer County (1)

Lucas W. Empey	Mildred E. Thoren

Riverside County (2)

A. L. Bramkamp	H. L. Ratliff
Bon O. Adams	R. B. McCarty

Sacramento County (3)

Frank MacDonald	Wayne Pollock
Raymond Wallerius	Paul Guttman
Harry Kanner	Ralph Teall

San Benito County (1)

R. L. Hull	R. S. Geen

San Bernardino County (3)

A. D. Neubert	T. I. Zirkle
Walter Cherry	R. C. Nichols
X. Olsen	A. L. Weber

San Diego County (6)

Winston C. Crabtree	B. F. Eager
James F. Churchill	Ralph Kaysen
S. J. McClendon	W. L. Garth
F. E. Toomey	J. G. Omelvena
A. J. Cooper	W. W. Belford
Willard H. Newman	C. W. Lane

San Francisco County (17)

H. Glenn Bell	Zera E. Bolin
Elbridge J. Best	Leroy Brooks
Frederic C. Bost	Howard A. Brown
Edwin L. Bruck	John W. Cline
G. Dan Delprat	Leo Henry Garland
J. C. Geiger	Ernst Gehrels
Thomas E. Gibson	Frank Hand
Philip K. Gilman	Nelson J. Howard
Harold A. Hill	Thomas J. Lennon
Irving S. Ingber	Mary Jones Mentzer
Alson R. Kilgore	James W. Morgan
Stanley H. Mentzer	Gunther W. Nagel
Robert R. Newell	Gerald B. O'Connor
George Warren Pierce	Leon O. Parker
Dohrmann K. Pischel	Robert S. Stone
John J. Sampson	David A. Wood
Roland P. Seitz	Rodney A. Yoell

San Joaquin County (3)

D. R. Powell	C. A. Broaddus
G. H. Sanderson	G. H. Rohrbacher
J. F. Doughty	C. V. Thompson

San Luis Obispo County (1)

Charles R. Kennedy	Earl B. King

San Mateo County (2)

Hartzell H. Ray	N. D. Morrison
J. Garwood Bridgman	H. Wade Macomber

Santa Barbara County (3)

H. E. Henderson	Hugh Freidell
Caleb Stone	Dan M. Clark
E. L. Markthaler	P. A. Gray

Santa Clara County (4)

Stanley R. Kneeshaw	Merlin T.-R. Maynard
Cecil M. Burchfiel	George L. Barry
Russel V. Lee	John H. Shephard
C. Kelly Canelo	Earl O. G. Schmitt

Santa Cruz County (1)

M. D. McPherson	R. S. Rood

Shasta County (1)

Name not received	Name not received

Siskiyou County (1)

James B. McQuire	Edward F. Carlson

Solano County (1)

John W. Green	Durward B. Park

Sonoma County (1)

A. A. Thurlow	L. W. Hines

Stanislaus County (1)

R. S. Hiatt	Hans Hartman

Tehama County (1)

O. T. Wood	R. G. Frey

Tulare County (1)

R. C. Hill	Austin V. Miller

Ventura County (1)

G. C. Coffey	A. A. Morrison

Yolo-Colusa-Glenn Counties (1)

John H. Woolsey	Joseph E. Tillotson

Yuba-Sutter Counties (1)

[illegible]ley Parkinson	E. E. Gray

SPECIAL COMMITTEE ON MEDICAL SERVICE PLANS: A PROGRESS REPORT

(CONFIDENTIAL)

CALIFORNIA MEDICAL ASSOCIATION

November 26, 1938.

To (1) Eligible Members of the House of Delegates of the California Medical Association, and

(2) The Presidents and Secretaries of the Component County Societies:

The Council of the California Medical Association on November 12, 1938, directed its Special Committee on Medical Service Plans to draft, with the assistance of the Association's Legal Counsel, a medical service plan in accordance with the tentative plan submitted to the Council at said meeting and prepare it for submission on or prior to the meeting of the House of Delegates on December 17, 1938.

The Special Committee and the Legal Counsel are devoting their time to the preparation of a plan in accordance with the Council's instructions. Meanwhile, it is felt that the members of the House of Delegates should be informed with respect to the nature of the plan in the process of development. Therefore, this interim report is submitted for your information and guidance with the express request that its subject matter remain wholly confidential and under no circumstances be discussed outside of your county medical society.

The Committee is formulating a plan containing the following fundamental principles:

1. Creation of a medical service organization to operate on a *nonprofit* basis.

2. All doctors of medicine in the State to be eligible to render services under the plan without special privilege to or discrimination against any individual or group of individuals.

3. Complete freedom of choice to the beneficiaries of the plan in the selection of a physician and surgeon who is willing to render services under the plan.

4. Prepayment of the cost of medical services and hospital care on a monthly budgeting basis, all funds collected to be used for defraying cost of medical services, hospital care, administrative overhead and the building up of a reasonable reserve for contingencies such as epidemics, etc. Administrative overhead to be maintained at the lowest possible figure consistent with efficient operation and normal growth.

5. Control of administration and policy of the plan to be vested in the medical profession through its representatives (the committee, however, recognizes the interest of the beneficiaries and the public in the *funds* which will be administered and intends to safeguard such funds).

6. Restriction of hospital care to matters included in the statutory definition of hospital services, viz.: "Maintenance and care in hospital, nursing care, drugs, medicines, physiotherapy, transportation, material appliances and their up-keep."

7. Medical services to be paid for out of available pooled funds on the "unit system." The unit system has been determined upon because no other method will insure against insolvency or bankruptcy and because it is evidence to the public of the good faith of the medical profession in the developmental period of this plan.

8. Beneficiary membership in the plan to be open to all California residents falling within the restricted income groups as rapidly as arrangements can be made therefor.

9. The scope of medical service is contemplated to include everything except industrial injuries, accidents or illness arising from lawlessness, insanity, mental disease, alcoholism, and drug addiction. Restrictions necessarily must be placed upon cases of pulmonary tuberculosis, pregnancy, miscarriage, and childbirth.

10. The administration of the plan shall be in charge of a board of trustees selected by representatives of the California Medical Association.

11. A medical director, with necessary assistants, responsible to the Board of Trustees and employed to serve at their pleasure, shall administer the plan and perform the duties usually performed by a medical director where beneficiaries' funds are pooled. The medical director shall be a doctor of medicine, not engaged in private practice.

12. District administration will be developed.

13. The Board of Trustees to have power to establish rules and regulations governing the administration of the plan.

The foregoing constitutes the general principles involved. In addition, it is important to bear in mind that the Committee definitely will not consider any terms or conditions which will in any way restrict the patient's freedom of choice, work to the advantage of one group of physicians at the expense of another, result in lay control, burden the plan with unnecessary administrative overhead, or tend to place the medical profession in a selfish or otherwise disadvantageous light before the general public, to whom the Committee believes the medical profession owes a distinct duty and trust.

In conclusion, may we again state that it is of vital importance that this report be considered wholly confidential. Any unauthorized disclosure of the contents hereof will inevitably prejudice the efforts of the medical profession without any benefit to anyone, including the informant.

Respectfully yours,

SPECIAL COMMITTEE ON MEDICAL SERVICE PLANS.
By Charles A. Dukes, Chairman.

* * *

November 29, 1938.

Regarding Special Session of California Medical Association House of Delegates: Secretary's Letter

To Be Held in Los Angeles on Saturday and Sunday December 17 and 18, 1938

To the Component County Medical Societies of the California Medical Association (Officers, Delegates, Alternates, and Members):

Dear Doctors:

Your attention is called to the following:

I. *Enclosures:*

Enclosed herewith appears the call of the special session of the House of Delegates of the California Medical Association, with roster of members of the California Medical Association who were listed as delegates and alternates on May 9 to 12, 1938, when the annual session was held this year in Pasadena.

II. *Who Are the Delegates to the Special Session on December 17?*

When the roll of the House of Delegates is called, those who will be seated, in the order of prior sequence, will be:

1. California Medical Association members who were officially listed as delegates for this year's annual session at Pasadena, May 9 to 12, 1938.

2. California Medical Association members who at that session were on the official list of alternates (see again the list).

3. California Medical Association members who *since* the special session was authorized at the November 12 meeting of the Council have been elected as alternates to fill probable vacancies existing in County Medical Society delegations.

(Note: Component county societies, in regular or special meeting, or through duly constituted boards or officers are urged to elect or appoint such additional alternates, as may

be indicated, in order that each component county society may be represented by a full delegation.)

III. *Expenses of Members:*

The California Medical Association will pay railroad and Pullman fares of seated members of the House of Delegates. The amount of additional expenses that will be paid by the California Medical Association (hotel and meals) will be decided by the Council at its meeting on the day prior to the House of Delegates session.

(Expense reports will be available at the registration desk for delegates. Every seated delegate should fill in the expense report and mail promptly to the Central Office of the Association: California Medical Association, Four Fifty Sutter, San Francisco.)

IV. *Place of Special Session:*

The House of Delegates will meet in the auditorium of the headquarters of the Los Angeles Medical Association at the northeast corner of Wilshire Boulevard and Westlake Avenue (1925 Wilshire Boulevard). Telephone: Drexel 7175.

V. *Time of First Meeting:*

On Saturday morning, December 17, at 9:30 o'clock in the morning.

VI. *Time of Second Day's Meeting:*

It is not known at this writing whether a second day's session will be held, but present indications point to such. Delegates should, therefore, count on being in Los Angeles both on Saturday the 17th and Sunday the 18th of December.

VII. *Hotel Headquarters:*

The Hotel Biltmore at Fifth and Olive streets, Los Angeles, has been selected as the central hotel headquarters. Members of the Council will be housed there and as many delegates as possible.

VIII. *Registration Card:*

A registration card is enclosed herewith, the lower portion of which should be filled in for use in registration:

1. At the hotel where you will stay; and

2. The remaining or upper portion to be likewise filled in and handed to the clerk at the registration desk in the meeting place. (Attention to this in advance will expedite registration at both places, and aid in better keeping of records.)

IX. *Meals on Meeting Days:*

On Saturday morning, December 17, a luncheon will be provided by the California Medical Association in the dining room of the Los Angeles Medical Association (on the second floor, with overflow in the rear of the auditorium). On Sunday, a buffet luncheon. No evening meals at the Association headquarters.

X. *Miscellaneous:*

Prompt registration will aid greatly in the transaction of business.

The Speaker will call the House to order at the hours agreed upon.

The office personnel of the Los Angeles County Medical Association, located in the rooms to the left as the building is entered, will be glad to be of aid. Feel free to consult them. The facilities of the library of the Los Angeles County Medical Association, in the north wing of the building are also extended. Visit it.

Expense allowances will not apply to residents of Los Angeles.

Special notices will be posted on the bulletin board in the entrance hallway.

If in doubt regarding the foregoing, kindly write or wire the Association Secretary at the Central Office in San Francisco.

The Council requests careful perusal of the above and the enclosures.

(Signed): GEORGE H. KRESS, *Secretary.*

COUNCIL OF THE CALIFORNIA MEDICAL ASSOCIATION

Minutes of the Two Hundred and Sixty-Eighth Meeting

Meeting held in Room 209 of the Sir Francis Drake Hotel, San Francisco, Saturday, November 12, 1938, at 9:15 a. m.

1. **Call to Order.**—The meeting was called to order by Acting Chairman Roblee, with the following members present: President William W. Roblee, President-Elect Charles A. Dukes, Past-President Howard Morrow, Speaker Lowell S. Goin, Chairman of the Council Karl L. Schaupp (arriving at 10); Councilors Calvert L. Emmons, Carl R. Howson, Louis A. Packard, Axcel A. Anderson, Oliver D. Hamlin, Philip K. Gilman, Fred N. Scatena, Henry S. Rogers, Junius B. Harris, W. H. Kiger, Harry H. Wilson, T. Henshaw Kelly, Chairman of Public Relations Committee George G. Reinle, Secretary-Editor George H. Kress, and General Counsel Mr. Hartley F. Peart, and his associate Mr. Howard Hassard.

By invitation: Drs. Walter B. Coffey, Morton R. Gibbons, and John H. Graves.

Absent: Dr. C. O. Tanner (absent from California), J. B. Harris, and A. L. Phillips.

2. **Financial Statements.**—Financial statements for the months of September, 1938, and October, 1938, were presented and on motion of Charles A. Dukes, seconded by A. E. Anderson, were approved.

3. **Loan.**—The Association Treasurer reported that, owing to the heavy outlay of funds made necessary to carry on the educational campaign against the State Humane Pound Act (proposed initiative law No. 2), it was found necessary to reëstablish the maintenance fund, in order to meet bills until next year's dues were received.

The Treasurer stated that in compliance with authorization given by the Trustees Of The California Medical Association, given at its meeting, held on October 20, 1938, a loan in the amount of $15,000 to the California Medical Association was obtained from the Crocker First National Bank by the Council's Committee of the Trustees and Council (Council Chairman Schaupp, Executive Committee Chairman Kelly, and Association Treasurer Kress), in accordance with action taken at its meeting on October 1, 1938. Doctor Kress reported that two $10,000 United States Government Bonds had, on proper authorization and action, been transferred from funds of the Trustees of the California Medical Association to be used as collateral for the loan, on the note given by the Committee for The California Medical Association. It was thought the note could be taken up in January next, when the 1939 dues would be payable.

4. **Annuity Insurance.**—The Association Secretary reported that a committee report of May 5, 1937, authorizing annuity payments for several clerical employees had never been recorded in the minutes as having been officially approved.

It was moved by George Reinle, seconded by A. E. Anderson, that the recommendations made in the Report of the Committee on Annuity Insurance, as presented at the Council Meeting of May 5, 1937, be approved. Carried.

5. **Recess of Council.**—At this point the Council recessed, to permit the Executive Committee to meet and consider the 1939 annual budget, as prepared by the Auditing Committee.

6. **Annual Budget.**—After the recess, the Council was called to order by Chairman Schaupp, Chairman of the Auditing Committee Kelly presenting the budget for the next year, as based on estimated income and expense for the year 1939. Chairman Kelly stated that the Auditing

Committee had recommended an allocation of 25 cents per member to two of the medical libraries in California: Lane Medical Library at San Francisco and Barlow (Los Angeles County Medical Association) Library at Los Angeles. It was explained that in return for this financial aid from the California Medical Association, these libraries would send literature to California Medical Association members through their home libraries, or directly to a member, provided the member gave a deposit of amount sufficient to insure return of the literature.

It was moved by George Reinle, seconded by Charles Dukes, that the budget of Association income and expense for the year 1939, as prepared by the Auditing Committee, and approved by the Executive Committee, be approved by the Council for presentation to the House of Delegates. Carried.

Doctor Kelly stated that no allocation had been included in the budget for stenographic assistance for the legal department and asked for discussion of the matter. No addition was made to cover such item in the budget.

7. **Mileage Allowance.** — Attention was called to the considerable expense incident to visitation tours to county societies when made by the President and President-Elect, with Councilors and Association Secretary. To conserve time, especially where frequent railroad service was not obtainable, it was necessary to use automobile service, the auto so used usually carrying two or more passengers on these visitation tours.

It was moved by George Reinle, seconded by Louis Packard, that the allowance for travel expense of the President and President-Elect on official visitation tours, be 10 cents per mile when automobile service was used. Carried.

8. **Fee Schedule.**—Morton R. Gibbons, Chairman of the Special Committee on Fee Schedule, presented a fee schedule he had drafted, as based on the California Industrial Accident Fee Schedule that had been devised and approved by the California Medical Association for industrial accident work in the year 1919. Doctor Gibbons pointed out the difficulty of making an all inclusive fee schedule for medical work, since fee schedules are intended to cover average cases and type of practice; whereas, in the practice of medicine, physicians are continually dealing with unforeseen difficulties which are not contemplated in the fees for average or typical cases, it being desirable that these latter should be passed upon individually. Doctor Gibbons stated that the Industrial Accident Fee Schedule had been based on an income of not to exceed $100 per month, and that for larger salaries an adjustment should be made.

It was moved by William Roblee, seconded by C. A. Dukes, that the fee schedule problem be referred to the Executive Committee for further consideration and action. Carried.

9. **Medical Service Plans.** — President Roblee stated that the Government, commercial agencies and the general public were pressing the medical profession for medical service plans and that in his tour of the State this had been a constantly arising question. For that reason he had suggested that a special meeting of the Council be called to consider the problem and make recommendations to the House of Delegates if deemed desirable.

Motion: It was moved by T. Henshaw Kelly, seconded by A. E. Anderson, that miscellaneous matters on the docket be considered prior to discussion of the topic of medical service.

A vote was taken on the motion, and the motion was defeated.

Doctors Dukes and Reinle spoke of the need for a medical service plan and stated that although no definite plan had been worked out they believed that a plan as they had informally presented it, in conjunction with the three nonprofit hospitalization groups already operating in California (Insurance Association of Approved Hospitals in the Bay Region, the Intercoast Hospitalization Insurance Association in the Sacramento Valley and the Associated Hospital Service of Southern California in Los Angeles and other southern counties), was worthy of careful consideration by the Council. Doctor Dukes stated that the hospitalization service executives of the above named nonprofit organizations had recently held a meeting, at which the addition of medical service to their plans, in coöperation with the medical profession, had been discussed.

Doctor Reinle outlined in chart graphs the set-up of a medical service plan carried on in conjunction with the established hospitalization organizations.

Doctor Walter B. Coffey, Medical Director of the Municipal Health Service System of San Francisco, who had been invited by President Roblee to attend the meeting and discuss medical service, outlined the plan under operation through which medical and hospital service was given to the employees of the City and County of San Francisco, monthly deductions being made from the salary payrolls, as outlined in the October issue of California and Western Medicine. Doctor Coffey submitted statistical data on the income and costs of the plan in furnishing medical and hospital service, outlined legislative and organizational features, and explained the difficulties to be guarded against in the consideration of any medical service plan. He stated that on the unit basis of payment provided in the San Francisco Municipal plan, hospitalization and professional costs had been paid at the end of the first month, up to 100 per cent of the fee schedule that had been adopted, said fee schedule being about the average of private practice fees, and more than industrial accident rates.

John H. Graves, ex-president of the California Medical Association, and former Medical Director of the California State Compensation Fund, who had also been invited by President Roblee to be present, then gave further details regarding the plan covering the employees of the City of San Francisco; stating that he considered the principles of the plan could very easily be adusted to cover similar service to the people of California on a voluntary basis, and through the members of the California Medical Association.

Doctor Coffey stated that he felt the plan he had proposed and was working under, could be operated as a voluntary as well as a compulsory plan, and read a plan suggested by him for voluntary medical service, as outlined in an address he had recently given.

Specific figures covering cost of operation of the Health Service Plan of the Employees of the City of San Francisco on a unit basis for both hospital and medical care were submitted by Doctor Coffey, he offering to coöperate fully with the Association in any plan the Association might inaugurate.

Dr. Lowell S. Goin, member of the Special Committee on Medical Service Plans discussed the studies of the Special Committee, stating that all members were agreed that some type of service should be offered. Doctor Goin stated that he did not agree with those who felt that the medical service should be offered through the existing hospitalization organizations or through lay representation; he believing that the medical profession had the necessary intelligence to formulate a periodic payment plan of medical service and that the care of the sick was primarily the problem of physicians, as it always had been up to the present time. Doctor Goin called attention to statistics that showed that 93 per cent of the expense of the care of the sick was medical care by physicians, and 7 per cent was hospital care. Doctor Goin then submitted a rough outline of a medical service plan for the information of the Council, stating that although the Committee had not had benefit of legal advice, the plan contemplated the organization of a nonprofit corporation, trusteeship or copartnership or organization with two classes of members, namely, beneficiary members, and professional members giving service; that it would cover all applicants in the aforesaid income groups without social service investigation (which, he stated, if it were used,

would be an objectionable feature to many applicants). Doctor Goin stated the tentative income figure considered was $3,000 per year; that payment of physicians would be on a unit basis; that hospitalization at first would be limited to three weeks, with the possibility of extending the period later; that in the organization of the plan, which would be controlled by physicians, provision would be made for contracts with existing hospitalization organizations, provided they desired the business. Doctor Goin urged at this time that the Council do not endorse any plan, except one formulated and controlled by the California Medical Association.

Doctor Kelly, member of the Special Committee on Medical Service Plans, stated that he was in entire accord with the views expressed by Doctor Goin.

Legal Counsel Peart was then asked for his opinion on types of organization that might be considered in the formation of a medical service plan by the California Medical Association. Mr. Peart stated that the legal aspects of any plan would require study but that he believed that a nonprofit coöperative insurance corporation could be formed under existing California laws, but that this would require a capital of $25,000 (Chapter 9 of Division 2 of Part 2 of California Insurance Code), being the same law under which two of the hospitalization services are now established. Mr. Peart stated that he would have to give further consideration to the legality of a nonprofit corporation with two classes of membership, as such a set-up had been stated to be insurance by the attorney general, although other decisions were to the contrary. Mr. Peart stated that there were objections to a partnership or a joint partnership, especially those of liability and cumbersome operation; and that a stock corporation would be clearly illegal. Mr. Peart stated that amendment of Assembly Bill 1132 (nonprofit hospitalization law: Chapter 11A, Division 2, Part 2 of the California Insurance Code), enacted by the California Legislature in 1937, might be desirable.

10. **Noon Recess.**—At this point a recess was declared for luncheon.

11. **Reconvening of the Council.**—The Council was called to order by Chairman Schaupp, with the following members present: President William W. Roblee, President-Elect Charles A. Dukes, Past-President Howard Morrow, Speaker Lowell S. Goin, Chairman of the Council Karl L. Schaupp; Councilors Calvert L. Emmons, Carl R. Howson, Louis A. Packard, Axcel A. Anderson, Oliver D. Hamlin, Philip K. Gilman, Fred N. Scatena, Henry S. Rogers, Junius B. Harris, W. H. Kiger, Harry H. Wilson, T. Henshaw Kelly, George G. Reinle; Secretary-Editor George H. Kress; and General Counsel Mr. Hartley F. Peart, and his associate, Mr. Howard Hassard.

By invitation: Drs. Morton R. Gibbons, Walter B. Coffey, and John H. Graves.

Absent: Dr. C. O. Tanner (out of State), and A. L. Phillips.

12. **Medical Service Plans.**—Doctor Goin presented the outline of a medical service plan which had been tentatively drafted during the last several months by a special committee of the Los Angeles County Medical Association.

Mr. Peart then explained further the use of the term "indemnity" stating that it was strictly a legal term found in the insurance code and that it meant reimbursement against loss or protection against liability; further, that it would not be necessary to use any of the instruments of insurance terms whatsoever and that any name could be selected for the organization. It was pointed out that any contemplated health service plan should be organized in full harmony with existing laws, and should provide for the free choice of physician.

Doctor Schaupp mentioned the operation of the California Agricultural Workers Medical Service Plan, as sponsored by the Federal and State governments, in relation to free choice of physicians who were eligible to membership in their respective county societies, and stated that there had been no difficulty in obtaining efficient service on that basis.

Doctor Packard reviewed medical conditions in Kern County and pointed out that any voluntary service plan would not reach that large portion of the population who fall below the income group previously mentioned, and suggested that it might be well to have experiments tried in different sections of the State, with a possibility of securing governmental aid.

Doctor Wilson stated that he believed the Association should proceed with the formulation of a medical service plan even though in the beginning, it was found to be inadequate in covering the very lowest income groups, now cared for by the State; and that adjustments could be made later, if necessary. Also, that it would be more desirable for the profession to continue to carry the load of the indigent, if necessary, rather than to sacrifice the time-honored privilege of being the custodians of the health of the people. Doctor Wilson stated that if the plan agreed upon would provide adequate care for the thousands of citizens in the low bracket income groups, then those persons not possessing such means could receive care, as at present, in the existing private hospitals and in county hospitals.

Doctor Wilson then outlined an organization set-up for a medically controlled medical service plan, covering hospitalization service through a contractual agreement.

Doctor Kelly stated that the San Francisco County Medical Society was also ready to go ahead with a medical service plan.

Motion: It was moved by Harry Wilson, seconded by A. E. Anderson, that the Council of the California Medical Association approve in principle, the plan presented by the Special Committee on Medical Service Plans, and that the Committee be and hereby is directed to redraft, with the assistance of the Legal Counsel of the Association, the said plan as submitted to the Council. Carried.

Doctor Schaupp stated that he felt the state dental associations should be consulted in the formulation of any medical service plan, and their ideas and suggestions secured; and that if desirable contractual agreements could be secured, and that the services of the three nonprofit hospitalization organizations should also be used.

Motion: Upon motion of W. W. Roblee, seconded by George Reinle, and unanimously carried by the affirmative vote of all members present, constituting more than two-thirds of all the members of the Council, it was

Resolved, That a special meeting and session of the House of Delegates of this Association, California Medical Association, is hereby called to be held at 1925 Wilshire Boulevard, in the City of Los Angeles, State of California, on Saturday, the seventeenth day of December, 1938, at the hour of 9:00 o'clock a. m. for the purpose of:

(*a*) Considering the acting upon any plan or plans presented by the Council for prepayment of, or pooling funds for, health services and care, and for the establishment of a state-wide system to render medical service and hospital care;

(*b*) Considering and acting upon a proposal to amend Chapter II of the By-Laws of the Association relating to professional ethics; and

(*c*) Considering and acting upon the formation and organization of a corporation and any other matters ancillary or related to any or all of the foregoing purposes as may be presented by the Council; and be it further

Resolved, That George H. Kress, the Secretary of this Association, be and he is hereby directed to prepare a written notice, as provided in Section 3 (i) of Chapter VI of the By-Laws, setting forth the time and place of meeting and purposes and objects thereof and transmit the same, signed by him and attested by the President, the Chairman of the Council and the Speaker of the House of Delegates, to each member of the House of Delegates in the manner and within the time required by the Constitution of the Association.

Motion: It was moved by T. Henshaw Kelly, seconded by J. B. Harris, that the Council authorize the Special Committee on Medical Service Plans to formulate a statement to be released as of even date of this meeting for publicity through the President of the Association. Carried.

13. **United States Public Health Cancer Survey.**—Doctor Dukes stated that the United States Public Health Service, in its survey of cancer, wishes to secure the names of patients with cancer. It was the sense of the Council that this was a violation of the principles of ethics, and that any statistics furnished should be identified by initial only, as in the system provided in the laws governing the reporting of venereal diseases in California.

14. **Ethics.**—Discussion was had of a change in the By-Laws, in relation to the Principles of Ethics. President Roblee suggested that the change apply to Section 4 of Chapter III of the Principles of Ethics of the American Medical Association, to permit impersonal solicitation of patients in nonprofit medical service plans under proper sponsorship.

Motion: It was moved by William Roblee, seconded by Axcel Anderson, and carried, that the proposed amendments to the By-Laws of the California Medical Association, be included in the call for the special session of the House of Delegates, to permit consideration of the same at the special session. The amendments proposed by President Roblee follow:

Resolved, That Section 4 of Chapter III, Principles of Medical Ethics, beginning with the words, "Section 4—Solicitation of patients" and ending with the words, "for the purpose of obtaining patients." be deleted from the Principles of Ethics of the American Medical Association as previously adopted by the House of Delegates of the California Medical Association, and in lieu thereof there be substituted for the California Medical Association, the following:

Section 4. Solicitation of patients by physicians as individuals, or collectively in groups, by whatsoever name these be called, or by institutions or organizations, whether by circular or advertisements or by personal communications, is unprofessional; provided, however, that solicitation of patients by a constituent state association or its component county medical societies (the plan of a component county society having first received the approval of its respective state medical association), acting singly or in groups, when said solicitation of patients is of an impersonal character and is done in the name of the aforesaid constituent units of organized medicine, and for the promotion of medical service plans controlled or approved by such constituent units, and designed to give more adequate medical and hospitalization care and service to citizens of certain stipulated income classes, shall be permissible and shall not be construed as unprofessional. This does not prohibit ethical institutions or constituted state or county medical society units from a legitimate advertisement of location, physical surroundings and special class—if any—of patients accommodated. It is equally unprofessional for physicians as individuals, or collectively, or in groups when not acting officially for state or county medical societies, singly or in groups, as before indicated, to procure patients by indirection through solicitors or agents of any kind or by indirect advertisement, or by furnishing or inspiring newspaper or magazine comments concerning cases in which the physician has been or is concerned. All other like self-laudations defy the traditions and lower the tone of any profession and so are intolerable. The most worthy and effective advertisement possible, even for a young physician, is the establishment of a well-merited reputation for professional ability and fidelity. This cannot be forced, but must be the outcome of character and conduct. The publication or circulation of ordinary simple business cards, being a matter of personal taste or local custom, and sometimes of convenience, is not per se improper. As implied, it is unprofessional to disregard local customs and offend recognized ideals in publishing or circulating such cards.

It is unprofessional to promise radical cures; to boast of cures and secret methods of treatment or remedies; to exhibit certificates of skill or of success in the treatment of diseases; or to employ any methods to gain the attention of the public for the purpose of obtaining patients.

15. **Policies of the Association.**—George Reinle, Chairman of the Committee on Statement of Policies of the Association, reported that statements would be formulated by the Committee from time to time, on legislative questions, in accordance with the instructions of the Committee on Public Policy and Legislation.

16. **X-Ray Service.**—Doctor Reinle, for the Special Committee appointed at the Council meeting of October 1, reported that the contemplated plans in relation to medical service would probably solve the problems incident to the furnishing of x-ray service in medical and hospital service plans.

17. **Farm Bureau Conference.**—Doctor Rogers stated that a meeting of representatives of the Farm Bureau organizations and the Association would be held at the Sir Francis Drake Hotel on Saturday, November 19.

18. **Golden Gate Exposition.**—Secretary Kress stated that he had conferred with officials of the Golden Gate International Exposition and had secured their coöperation in a plan to secure a grant for space for the Cancer Exhibit which the Association contemplated placing at the Golden Gate Exposition.

Doctor Morrow, President of the California State Board of Health, spoke of the proposed exhibits of the State Board of Health for the Exposition.

19. **State Humane Pound Act.**—P. K. Gilman, Chairman of the Committee of the California Society for the Promotion of Medical Research and of the California Medical Association Committee on State Humane Pound Act and Animal Experimentation, reported on the campaign to defeat the State Humane Pound Act (Initiative No. 2).

Doctor Gilman stated that he believed the present pound laws should be revised, and that amendments might be proposed to the next legislature.

Motion: It was moved by W. W. Roblee, seconded by George Reinle, that the present California Medical Association Committees on Medical Research and Animal Experimentation be continued, with power to act, in conjunction with the Committee on Public Policy and Legislation.

Doctor Gilman stated that the California Society for the Promotion of Medical Research would send in a complete report on the State Humane Pound Act, for the Association files.

Motion: It was moved by P. K. Gilman, seconded by George Reinle, that letters of appreciation be sent by the Association Secretary to the secretaries of the county societies, to the Woman's Auxiliaries, to Dr. John W. Crossan and others who had given special aid to bring about the defeat of the State Humane Pound Act. Carried.

Association Secretary Kress reported that in addition to the California Medical Association grant of $7,000 to the California Society for the Promotion of Medical Research, the California Medical Association had itself expended slightly more than $7,000 for postcards and for the maintenance of the suboffice in Los Angeles under the direction of Dr. John Crossan. Also that one report on expenditures was sent to the Secretary of State.

General Counsel Peart stated that the third or final report to the Secretary of State of California on expenditures of the Association in connection with the State Humane Pound Act would be filed within thirty days following election, as soon as the Association Secretary secured all outstanding bills.

20. **Taxes.**—(*a*) California Sales Tax:

The legal department reported that the printers of the Official Journal, The James H. Barry Company, had

been assessed by the State of California for a sales tax covering the OFFICIAL JOURNAL and payment should be made by November 15, 1938, otherwise a penalty would be assessed.

The Secretary presented two sales tax bills from The James H. Barry Company, publishers, one for $1,647.22 to cover the quarter periods September 31, 1935 to June 30, 1937, inclusive (overdue), and the other for the last quarter, July to September, 1938, for the sum of $179.28.

It was moved by Charles Dukes, seconded by A. E. Anderson, that the Barry Company be reimbursed for the amounts of State sales tax on CALIFORNIA AND WESTERN MEDICINE, as per bills submitted. Carried.

The Association Secretary called attention to the fact that the State Government had not computed as yet, the sales tax for the quarters covered by the period July 1, 1937 to June 30, 1938, inclusive.

(*b*) Federal Social Security Act (Old Age Unemployment):

Mr. Hassard of Legal Counsel Peart's office, reported that the Association also had been held taxable under Titles 8 and 9 (Old Age Federal Unemployment) and assessment covering the period July 1 to September 30, 1938, in the amount of $57.88 had been paid by the Association.

Mr. Hassard stated that the amount of this assessment of this tax prior to the last quarter had, as yet, not been determined by the United States Commissioner of Internal Revenue, and that it is the intention of the Legal Department of the Association to contest any assessment prior to July 1, 1938, this position being in harmony with that taken by the American Medical Association on the same tax.

(*c*) California Unemployment Tax:

Mr. Hassard stated that he had written to the California Unemployment Reserves Commission but that up to the present time no reply had been received as to the amounts due on that particular tax.

21. **Health and Development Certificates.**—General Counsel Peart reported on the case of the *State Board of Education* vs. *Jordt*, stating that the decision rendered by the Superior Court at Sacramento, held that osteopathic physicians and surgeons were eligible for health and development certificates, and that the case would probably go to the District Court of Appeal.

22. **Empire Medical Service Association.** — General Counsel Peart informed the Council of the provisions of the policy of the Empire Medical Service Association, a medical service association, under lay control. It was felt that the information should be sent to the Secretary of the County Society interested.

23. **Malpractice Policies.** — The General Counsel reported on letters from a member regarding criticism of one insurance company by another.

24. **Pacific Employers' Insurance Corporation.**—General Counsel Peart suggested that in the case of Pacific Employers, which is now being tried in the Supreme Court, the legal counsel be authorized to coöperate with the counsel for the State Accident Commission and the insurance companies. No objection was made to the suggestion.

25. **Jean Ferrell, Inc. vs. United States Pharmacopeal Convention, American Medical Association, California Medical Association, Homer S. Cummings, Attorney-General of the United States, et al.**—Mr. Peart stated that he had received notice of an action in the above case, having to do with the United States Pure Food and Drug Act, and that he was at present trying to secure additional information thereon.

26. **Reprint Costs.**—Secretary Kress reported that the reprint schedule had been revised on the basis of printer's costs, plus 10 per cent.

It was moved by T. Henshaw Kelly, seconded by A. E. Anderson, that the revised schedule of reprint prices be approved. Carried.

27. **Industrial Work.**—A letter from Harry Field regarding the responsibility of treatment of lues in industrial work was presented.

It was moved by T. Henshaw Kelly, seconded by P. K. Gilman that Mr. Field be advised that public health facilities were available for treatment of such patients and that the correspondence be referred to the Department of Public Health. Carried.

28. **Prenatal and Premarital Legislation.**—Secretary Kress reported on the proposed legislation covering prenatal and premarital examinations, as explained to him in a conference with Mrs. E. W. Hafford, representative of the Southern California organization.

Drafts of proposed laws were submitted. These were referred to the Committee on Public Relations, and to the Committee on Public Policy and Legislation.

29. **Golden Gate International Exposition Numbers.** The Secretary presented written requests from the San Francisco *Examiner* and the San Francisco *Chronicle* regarding special editions of the newspapers to be published the day preceding the opening of the Fair.

It was moved by T. Henshaw Kelly, seconded by Louis Packard, that it was against the policy of the Association to authorize the use of its name in such matters. Carried.

30. **Clinics.**—A letter from Louis Packard regarding standards for clinics was presented.

The Secretary stated that all California clinics or groups using the name of clinic were governed by the State Clinic Law, which provided that all clinics were required to secure the official approval of the State Board of Health before operating as such.

31. **Reporting Service.**—Secretary Kress presented the bid of the Yates Reporting Service for report of the meetings of the House of Delegates and General Sessions at the next annual session.

It was moved by William Roblee, seconded by P. K. Gilman, that the Yates Reporting Service be employed on the basis of the bid submitted, dated November 9, 1938. Carried.

32. **Cancer Appropriations.**—It was moved by William Roblee, seconded by A. E. Anderson, that the suggestion to secure some of the Federal Appropriation for Cancer Research be referred to the Cancer Commission. Carried.

33. **Wylie Bed.**—It was the sense of the Council that the Chairman of the Executive Committee and the Secretary formulate a letter of reply to Dr. Arthur E. Varden, Secretary of the San Bernardino County Medical Society, concerning a pediatric bed invented by one of the members, and call attention to the rules laid down for such matters by the American Medical Association.

34. **Nurses' Bill.**—Doctors Harris and Kelly reported on the present status of the proposed law to establish a State Board of Examiners for Nursing.

It was moved by Harry Wilson, seconded by P. K. Gilman, that the Chairman of the Executive Committee in cooperation with the Chairman of the Committee on Public Policy and Legislation write a letter to the county society secretaries, calling their attention to the desirability of not approving proposed laws or other legislative matters without first giving thorough consideration thereto, and securing the viewpoints of the Association, in order not to hamper the work of the Committee on Public Policy and Legislation. Carried.

Ill-advised resolutions of endorsement were most embarrassing when brought forth in Committee meetings, when the legislature was in session, and could seriously affect public health and other interests.

35. **Medical Service Plan at Palo Alto.**—The Association Secretary presented a letter from the Santa Clara County Medical Society regarding methods of procedure in consideration and approval of medical service plans. Doctor Kress stated that copies of the rules and actions taken by the Council and the House of Delegates in relation thereto, had been forwarded to Doctor Magoon, Secretary of the Santa Clara County Medical Society.

It was moved by T. Henshaw Kelly, seconded by J. B. Harris, that the letter of the Santa Clara Society be referred to the Committee on Public Relations. Carried.

36. **Stenographic Text.**—A telegram requesting permission to use excerpts from CALIFORNIA AND WESTERN MEDICINE, for use in a stenographic course of study to be published by the Gregg Company, was read.

It was moved by J. B. Harris, seconded by T. Henshaw Kelly, that there was no objection to use of such copy. Carried.

37. **Medical Practice Act Amendments.** — Doctors Kelly and Harris reported on the proposed amendments to the California Medical Practice Act, regarding interns and residencies, and stated that the Board of Medical Examiners were agreeable to making provision for exception for interns for one year, but objected to any extension of time for a longer period of time.

38. **Institutions Commission.** — Secretary Kress reported that the Board of Supervisors at Los Angeles had adopted on Date of September 27, 1938, a resolution asking for a form of advisory Institutions Commission for the Los Angeles County General Hospital.

39. **Medical and Hospital Care Policies.**—Secretary Kress reported that in accordance with previous Council action, a copy of the General Counsel's opinion on medical and hospital care policies had been sent to all county societies.

40. **Chiropractic Initiative.** — A letter regarding the proposed chiropractic initiative was presented, showing the manner in which that group was proceeding in regard to the proposed initiative law now on file in the office of the California Secretary of State.

41. **Retired Membership.**—The San Francisco County Medical Society having recommended for retired membership Dr. Emma C. LaFontaine of San Francisco, who had retired from practice, it was moved by T. Henshaw Kelly, seconded by A. E. Anderson, that Emma C. LaFontaine be granted retired membership in the California Medical Association. Carried.

42. **Membership Requirement.**—A letter from the San Bernardino County Society relating to residency period was presented and the Secretary was instructed to inform the Society that the Council could not waive the requirement of six months' prior residence, as provided in the By-Laws.

43. **San Francisco Hearing.**—The Secretary reported on the hearing in the case of *Green* vs. *Pischel,* before the San Francisco County Society, as recorded in a copy of a letter containing a resolution of the Board of Directors of the San Francisco Society, dated November 1, 1938.

The Secretary was instructed to write a letter to W. E. Mitchell, M.D., expressing the appreciation of the Council for his services, in acting as a referee in the hearing.

44. **Merced County Hospital.**—A letter from A. E. Anderson regarding pay patients in the Merced County Hospital, for the information of the Council, was read.

45. **Alameda County Workers' Alliance.** — A letter from the Alameda County Workers' Alliance was presented for the information of the Council. Doctor Kress stated that he had referred the Alliance to the State Board of Health as the proper authority in infectious diseases, and had notified the Alameda County Society.

46. **Tuberculosis Committee.**—A letter was read from the American College of Chest Surgeons asking that a Committee on Tuberculosis be appointed.

It was suggested that a State Committee, if appointed, should operate as a subcommittee under the Committee on Medical Education and Hospitals.

It was moved by T. Henshaw Kelly, seconded by Harry H. Wilson, that the Committee on Medical Education and Hospitals be authorized to appoint a Subcommittee on Tuberculosis. Carried.

47. **School Bus Drivers.** — Correspondence from the San Luis Obispo County Society regarding the necessity of physical fitness in school bus drivers was presented. The Council agreed that this matter deserved consideration by those making such appointments.

48. **Adjournment.**—There being no further business, the meeting adjourned.

GEORGE H. KRESS, *Secretary.*

KARL L. SCHAUPP, *Chairman.*

EXECUTIVE COMMITTEE: CALIFORNIA MEDICAL ASSOCIATION

Digest of the Minutes of the One Hundred and Fifty-Sixth Meeting of the Executive Committee

Meeting held in Room 209 of the Sir Francis Drake Hotel, San Francisco, Saturday, November 12, 1938, at 10 a. m.

Chairman Kelly stated that in accordance with Chapter IV, Section 4 of the By-Laws, it was necessary for the Executive Committee to consider the tentative budget for the year 1939, as prepared by the Auditing Committee.

As chairman of that committee, Doctor Kelly then discussed the budget items, explaining why additions and subtractions had been made.

The budget as submitted was approved.

GEORGE H. KRESS, *Secretary.*

T. HENSHAW KELLY, *Chairman.*

MEDICAL SERVICE PLANS

A News Release

A press release of Monday, November 14, appears below:

Dr. W. W. Roblee of Riverside, President of the California Medical Association, with a membership of 6,000 physicians, made an important and interesting announcement today.

"The Council of the Association," said Doctor Roblee, "at its meeting in San Francisco today, directed its Committee on Medical Service to put into final form a plan by which medical and hospital service will be furnished to citizens of California and their dependents on a monthly payment basis.

"The plan will be operated by the California Medical Association or its representatives, and will provide the services of all licensed doctors of medicine in the state who are willing to abide by the rules and regulations necessary to operate the plan.

"The subscribers will have free choice of physicians in this group and also of hospitals, for it is contemplated to use the facilities of the three large hospital service associations which have pioneered hospital service plans in California, Insurance Association of Approved Hospitals in the Bay region, the Intercoast Hospitalization Insurance Association in the Sacramento Valley, and the Associated Hospital Service of Southern California in Los Angeles and other southern counties.

"The Council has called a special meeting of the House of Delegates of the Association to meet in Los Angeles on December 17 to approve the final plans which will speedily be put into operation after their approval."

The life, the fortune and the happiness of every one of us depend upon our knowing something of the rules of a game infinitely more difficult and complicated than chess. It is a game which has been played for untold ages, every man and woman of us being one of the two players in a game of his or her own. The chess board is the world, the pieces are the phenomena of the universe, the rules of the game are what we call the laws of nature. The player on the other side is hidden from us. We know that his play is always fair, just and patient. But we also know, to our cost, that he never overlooks a mistake, or makes the smallest allowance for ignorance. One who plays ill is checkmated without haste, but without remorse.—Huxley.

C. M. A. DEPARTMENT OF PUBLIC RELATIONS†

Itinerary of President Roblee and Party; In Visitation Tour in Northern California

Commencing on Wednesday, November 2, at Napa, and closing on Tuesday, November 15, at Sacramento, President W. W. Roblee of Riverside, with President-Elect Dukes, Councilors Rogers, Scatena, and Phillips, Association Secretary Kress and Past President Peers (two or more of them), were present at meetings held as follows: Yountville, Chico, Marysville, Redding, Yreka, Eureka, Agnew, Del Monte, Auburn, and Sacramento.

The guest speakers gave talks on organization problems and present-day trends in medical practice, and exchanged fraternal greetings with Association members living in the districts visited.

The itinerary is given in table below.

Medical-Hospital Care—California Plan Devised

Los Angeles, November 17—(UP).—America's first extensive medical service plan to provide doctor and hospital care at low costs to a majority of wage earners and their families was outlined today by leaders who will submit it to the California Medical Association next month.

Representing six years of study and research, the plan was explained in detail for the first time to two thousand members of the Los Angeles County Medical Association by Dr. Lowell S. Goin, speaker of the California Medical Association's ruling house of delegates and chairman of the county and state committees in charge of the program.

"PARI-MUTUEL" SYSTEM

The plan, eagerly awaited by the American Medical Association which traditionally has opposed all such theories, provides in effect a "pari-mutuel" system of fees to cooperating physicians and unlimited medical service and limited hospitalization to subscribing families at a maximum cost of $72 a year.

The program, if approved December 17 by the house of delegates, will be binding upon all county medical units in the State. Professional membership is optional, but in the view of leaders the implied penalty of loss of patients to non-coöperating physicians would make membership virtually mandatory.

PROVISIONS OF PLAN

Subject to modification, the plan stacks up as follows:

Eligible to subscribe to the service would be all workers earning under $2,500 a year. Costs would start at $2.65 a month for the individual and increase by $1 for each dependent up to a maximum of $6 for the family, regardless of its size. Dependents would be defined on the same basis that the Government defines them for income tax purposes. Patients are free to select their own doctor and hospital.

Subscribers would be guaranteed medical care and hospitalization for all maladies, excepting insanity and mental diseases, acute alcoholism, narcotic addiction, and tuberculosis of the kind where sanatorium treatment is required.

FOR STATE OR UNITED STATES

Broadly speaking, the profession regards these exceptions as cases for state or federal supervision. The service would allow treatment for venereal diseases, but hospitalization for cancer sufferers and those with similar malignant diseases would be restricted to operative and therapeutic treatment.

In all cases, hospitalization would be limited to three weeks per person per year. The average operative case requires only twelve days. Service privileges would apply at once, except for maternity patients, who must have been subscribers for a year.

Coöperating physicians and surgeons would be paid on a basis of "units," the value of which would be determined quarterly by the board of trustees, the administrative body. —San Francisco *Chronicle*, November 19, 1938.

* * *

Proposed Chiropractic Initiative

In the November official journal, on page 356, mention was made of the fact that the chiropractors had secured

† The complete roster of the Committee on Public Relations is printed on page 2 of the front advertising section of each issue. Dr. George G. Reinle of Oakland is the chairman and Dr. George H. Kress is the secretary. Component county societies and California Medical Association members are invited to present their problems to the committee. All communications should be sent to the director of the department, Dr. George H. Kress, Room 2004, Four Fifty Sutter Street, San Francisco.

Northern California Itinerary: Doctors Roblee and Kress (with Doctors Dukes, Rogers, Phillips, Scatena and Peers Present at Some of the Meetings)

Date November	Day	City of Meeting	County Society Host	Councilor
2nd	Wednesday	Yountville, Veterans' Home, 7:00 p. m.	Napa	Dr. Rogers
3rd	Thursday	Chico, Hotel Oaks, 7:00 p. m.	Butte	Dr. Scatena
4th	Friday	Marysville, Hotel Marysville, 6:30 p. m.	Yuba-Sutter	Dr. Scatena
5th	Saturday	Redding, Hotel Redding, 6:30 p. m.	Shasta	Dr. Scatena
6th	Sunday	Yreka, Yreka Inn, 2:30 p. m.	Siskiyou	Dr. Rogers
7th	Monday	Eureka, Eureka Inn, 8:15 p. m.	Humboldt	Dr. Rogers
8th	Tuesday	Election Day. No meeting		
9th	Wednesday	Agnew State Hospital, Evening	Santa Clara San Mateo	Dr. Phillips
10th	Thursday	Hotel Del Monte, 7:30 p. m.	Monterey San Benito Santa Cruz	Dr. Phillips
11th	Friday	Hotel Del Monte. No meeting	(To Check on Arrangements for Annual Session)	
12th	Saturday	Executive Committee Meeting, 9:00 a. m.	San Francisco	
13th	Sunday	No meeting		
14th	Monday	Auburn, Freeman Hotel, 6:30 p. m.	Placer	Dr. Scatena
15th	Tuesday	Sacramento, Auditorium, 8:30 p. m.	Sacramento	Dr. Scatena

sufficient signatures to an initiative petition to place the same on the first special or regular state election to be held in 1939 or 1940.

The interesting copy of a letter, printed below, has recently been received. It is worthy of perusal, as will be evident when its paragraphs are scanned. The communication follows:

(COPY)

NATIONAL AFFILIATED CHIROPRACTORS
OF CALIFORNIA, INC.

Alameda, Contra Costa Unit

Oakland, California,
October 24, 1938.

Dear Doctor:

Now that we are definitely on the ballot we are faced with the larger task of publicizing our amendment so that we will not fail at the polls, probably in March, 1939. No matter how just the cause or how worthwhile our bill may be, unless the public is educated the vote will be overwhelmingly no.

As you know, the medical association and others will spend many thousands of dollars to defeat the amendment and unless we are prepared to spend liberally to support our cause, all that has previously been done will go for naught.

The officers of the National Affiliated Chiropractors of California with the approval of the Chiropractic State Board members have contracted with the Professional Credit and Audit System to handle the solicitation of funds for campaign purposes, on a statewide basis. It is necessary that we raise a fund of at least $75,000 and in order to raise that amount, each and every one of the chiropractors actively engaged in practice and all others who take any interest in the advancement of the profession, must contribute at least $50.

In a short while you will be called on at your office by a member of the above firm, either ——— or ———, and we earnestly request that you grant him an immediate interview as our time for raising this fund is indeed limited. He will explain to you how he can help you pay your quota by collecting your outstanding bad bills for you. [*Sic!*]

Dr. ———————
President of A. C. C. Unit

By Dr. ———————
Secretary

Dr. ———————
Secretary, State Board Chiropractic Examiners

* * *

Chiropractic Initiative: Proposed Law

CALIFORNIA AND WESTERN MEDICINE, in its issue of November, 1938, on page 356, called attention to a proposed initiative measure whereby amendments would be made to the existing Chiropractic Practice Act, enacted by initiative on November 7, 1922, and which became legally operative on December 21, 1922.

A copy of the proposed amendments which will go on the ballot of the next State election to be held, either at the regular State election in 1940, or prior thereto, if a special State election is held in the meantime, has been secured from the Secretary of State and is printed below, for the consideration of all who are interested. Comments or suggestions may be sent to the Association Secretary, Four Fifty Sutter, San Francisco, and will be forwarded to the proper committees.

Attention is also called to other items concerning the chiropractic group, printed in this issue: (1) A letter sent out by their association (see above); and (2) the opinion of Superior Court Judge Van Nostrand, on page 457.

(COPY)

Initiative Measure To Be Submitted Directly to the Electors

The Attorney General has prepared a title and summary of the chief purposes and points of said proposed measure, as follows:

Chiropractors. Initiative. Amends title and certain sections of Chiropractic Act; provides secretary of Chiropractic Board shall devote full time to duties and increases his salary; increases powers of board; increases educational requirements of applicant for license; permits licensees to diagnose and treat diseases, injuries, deformities or other physical or mental conditions of human beings, without using drugs or severing any tissues of human body; specifies grounds of and proceedings for suspension or revocation of license; specifies annual renewal license fee and method of reinstating forfeited license; declares licensees shall report communicable diseases and sign birth and death certificates.

State of California, County (or City and County) of ss.

To the Honorable, the Secretary of State of the State of California:

We, the undersigned, registered, qualified electors of the State of California, residents of the county (or city and county) of ———, hereby present to the Secretary of the State this petition and hereby propose a law and act entitled as follows: "An act to amend the title and Sections 3, 4, 5, 7, 10, 12 and 13 of that certain act entitled "An act prescribing the terms upon which licenses may be issued to practitioners of chiropractic, creating the state board of chiporactic examiners and declaring its powers and duties, prescribing penalties for violation hereof, and repealing all acts and parts of acts inconsistent herewith," approved by the electors at the general election on November 7, 1922; providing for the organization of the state board of chiropractic examiners, and providing for its officers, duties, powers and compensation; regulating the practice and licensing of chiropractors; defining the scope of practice of licensees; establishing educational requirements and other qualifications for licensees; fixing license and renewal fees; providing for the issuance, suspension, revocation and reinstatement of licenses; providing for investigation and approval of chiropractic schools and colleges; requiring reports of communicable diseases; and repealing all conflicting provisions of other acts, to read as hereinafter set forth in full, and petition that the same be submitted to the electors of the State of California for their adoption or rejection at the next succeeding general election or as provided by law.

The proposed law and act is as follows:

An act to amend the title and sections 3, 4, 5, 7, 10, 12 and 13 of that certain act entitled "An act prescribing the terms upon which licenses may be issued to practitioners of chiropractic, creating the state board of chiropractic examiners and declaring its powers and duties, prescribing penalties for violation hereof, and repealing all acts and parts of acts inconsistent herewith," approved by the electors at the general election on November 7, 1922; providing for the organization of the state board of chiropractic examiners and providing for its officers, duties, powers and compensation; regulating the practice and licensing of chiropractors; defining the scope of practice of licensees; fixing license and renewal fees; providing for the issuance, suspension, revocation and reinstatement of licenses; providing for investigation and approval of chiropractic schools and colleges; requiring reports of communicable diseases; and repealing all conflicting provisions of other acts.

The people of the State of California do enact as follows:

Section 1. The title of that certain act entitled "An act prescribing the terms upon which licenses may be issued to practitioners of chiropractic, creating the state board of chiropractic examiners and declaring its powers and duties, prescribing penalties for violation hereof, and repealing all acts and parts of acts inconsistent herewith," approved by the electors at the general election on November 7, 1922, is hereby amended to read as follows:

"An act creating the state board of chiropractic examiners, and providing for its organization, members, duties and powers; regulating the practice and licensing of chiropractors and defining the scope of practice thereof; providing for the investigation and approval of chiropractic schools and colleges; establishing educational requirements and other qualifications for licensees; fixing license fees; providing for the issuance, suspension, revocation and reinstatement of licenses; prescribing penalties for violation hereof, and repealing all conflicting provisions of other acts."

Section 2. Section 3 of said act is hereby amended to read as follows:

Sec. 3. The board shall convene within thirty days after the appointment of its members, and shall organize by the election of a president, vice-president and secretary, all to

be chosen from the members of the board. Thereafter elections of officers shall occur annually at the January meeting of the board. A majority of the board shall constitute a quorum.

It shall require the affirmative vote of three members of said board to carry any motion or resolution, to adopt any rule, or to authorize the issuance of any license provided for in this act.

The secretary shall receive a salary to be fixed by the board in an amount not less than three thousand six hundred dollars per annum and not more than four thousand two hundred dollars per annum, together with his actual and necessary traveling expenses incurred in connection with the performance of the duties of his office, and shall give bond to the state in such sum with such sureties as the board may deem proper. He shall devote his full time to the performance of his duties as such secretary. He shall keep a record of the proceedings of the board, which shall at all times during business hours be open to the public for inspection. He shall keep a true and accurate account of all funds received and of all expenditures incurred or authorized by the board, and on the first day of December of each year he shall file with the governor a report of all receipts and disbursements and of the proceedings of the board for the preceding fiscal year.

Section 3. Section 4 of said act is hereby amended to read as follows:

Sec. 4. The board shall have power:

(a) To adopt a seal, which shall be affixed to all licenses issued by the board.

(b) To adopt from time to time such rules and regulations as the board may deem proper and necessary for the enforcement of this act, copies of such rules and regulations to be filed with the secretary of the board for public inspection.

(c) To examine applicants and to issue and revoke licenses to practice chiropractic, as herein provided.

(d) To summon witnesses and to take testimony as to matters pertaining to its duties; and each member shall have power to administer oaths and take affidavits in connection with board matters.

(e) To approve every chiropractic school or college which complies with the provisions of this act and the rules and regulations of the board. Nothing in this act shall prohibit the board from withdrawing its approval of any chiropractic school or college after such approval has been granted.

(f) To promulgate and adopt rules and regulations for the conduct of chiropractic schools and colleges. Each chiropractic school or college in order to obtain the approval of the board shall make application therefor to the board in writing, and shall furnish such information regarding such school or college as may be required by the board. Said schools or colleges shall at all reasonable times permit any member of the board or any representative thereof to enter upon the premises of such school or college and to inspect the facilities and records thereof.

(g) To publish an annual directory, a copy of which shall be delivered to each licentiate without cost. Copies of said directory may be sold to other persons at one dollar per copy.

(h) To employ an assistant secretary, inspectors, attorney, and such other clerical assistance as the board may deem necessary.

(i) To do any and all things necessary or incidental to the exercise of the powers and duties herein granted or imposed.

Section 4. Section 5 of said act is hereby amended to read as follows:

Sec. 5. It shall be unlawful for any person to practice chiropractic in this state without a license so to do. An applicant for a license hereunder must be not less than twenty-one years of age, of good moral character, and must submit satisfactory proof of graduation from a high school requiring not less than fifteen units for graduation. He must apply to said board at least fifteen days prior to any meeting thereof, upon such form and in such manner as the board may provide, and the application must be accompanied by a fee of twenty-five dollars.

Except in cases herein otherwise provided for, an applicant for a license to practice chiropractic must be a graduate of a chiropractic school or college approved by said board, which teaches a course of instruction of not less than four thousand hours in the subjects hereinafter enumerated in this section, extended over a period of four school terms of not less than nine months each.

An applicant for a license hereunder must submit satisfactory proof of actual attendance during not less than 90 per cent of the hours herein prescribed.

For the purposes of this act, an academic "hour" shall be construed as a period of not less than fifty minutes. The hours of instruction and the subjects required of an applicant for a license to practice chiropractic, and the minimum of hours and courses to be taught by an approved chiropractic school or college are as follows:

Subject	*Hours*
Dissection	150
Histology	100
Anatomy	600
Bacteriology	100
Chemistry (including 50 hours laboratory)	150
Hygiene and sanitation	100
Toxicology	50
Physiology	300
Pathology	300
Physical Diagnosis and Analysis	450
Chiropractic Theory and Practice	500
Obstetrics	200
Gynecology	100
Spinography	100
Biology	100
Physics	100
Dietetics, including Endocrinology, Biochemistry, and Food Chemistry	300
Physical Therapy and Practice	300
Total	4000

Section 5. Section 7 of said act is hereby amended to read as follows:

Sec. 7. One form of certificate shall be issued by the board of chiropractic examiners; said certificate shall be designated "License to practice chiropractic," which license shall authorize the holder thereof to diagnose and treat diseases, injuries, deformities or other physical or mental conditions of human beings, without the use of drugs and without in any manner severing any of the tissues of the human body.

Section 6. Section 10 of said act is hereby amended to read as follows:

Sec. 10. (a) Said board shall refuse to grant, or may suspend or revoke a license to practice chiropractic in this state upon any of the following grounds:

First—Procuring or aiding or attempting to procure a criminal abortion.

Second—Violating or attempting to violate, directly or indirectly, or failure to comply with, any provision of this act.

Third—Wilfully betraying a professional secret.

Fourth—Revocation or suspension by a sister state of a license by virtue of which one is licensed to practice in this state.

Fifth—Employing, directly or indirectly, any unlicensed practitioner in the practice of chiropractic, but this provision shall not be construed to prohibit the employment of nurses or other bona fide assistants by licensees under this act.

Sixth—Advertising which is intended or has a tendency to deceive the public or to be harmful to public morals or safety, or the advertising of definite or fixed prices for professional services.

Seventh—Advertising of any treatment, medicine or method whereby the monthly periods of women can be regulated or the menses reëstablished.

Eighth—Conviction of a felony or of any offense involving moral turpitude in which case the record of such conviction shall be conclusive evidence.

Ninth—The purchase or sale, or offer to purchase or sell, the alteration of, or fraudulent use of, any chiropractic or other diploma, degree or license.

Tenth—Fraud in an application or examination for a license.

Eleventh—Practicing chiropractic under a false name or the impersonation of another chiropractor.

Twelfth—Habitual intemperance or excessive use of ardent spirits or narcotics.

Thirteenth—Advertising, directly or indirectly, in any manner, that a licensee hereunder, or any person or company connected with him, will treat or cure, or attempt to treat or cure, any venereal or sexual disease, weakness or disorder.

Fourteenth—Failure or refusal to record a license as required by this act.

Fifteenth—The employment of "cappers" or "steerers" or other persons in procuring chiropractic practice.

Sixteenth—Misrepresentation in connection with alleged rights or privileges to practice as a licensee under this or any other professional act.

(b) Before any license is suspended or revoked by said board, the licensee shall be furnished with a specification of the ground or grounds upon which suspension or revoca-

tion of his license is contemplated and after reasonable notice thereof to the licensee the board shall conduct a hearing in the matter at which time the licensee may be represented by counsel.

(c) If an application for a license is refused by said board, or if after notice and hearing a license issued is suspended or revoked, the aggrieved person may commence an action in the superior court against the board to compel the granting of the application or to cancel the act of the board in suspending or revoking the license, as the case may be, or for any other appropriate relief, such action to be in the nature of a proceeding in review. Every order of the board shall be final and conclusive as to questions of fact. A proceeding to review an order of the board must be filed within thirty days after the issuance of the order and tried in the county in which the board hearing was held or in any county wherein the board maintains an office.

(d) The secretary shall enter in his records the fact of such revocation or suspension, and shall certify that fact to the county clerk of the county in which the license has been recorded pursuant to Section 11 hereof. Said clerk must thereupon endorse that fact, opposite the name of the licensee in his said record. The record of such revocation or suspension so made by said clerk shall be prima facie evidence of the fact thereof, and of the regularity of all proceedings of said board in the matter of said revocation or suspension.

(e) After two years from the revocation of a license said board may make an order of restoration and issue a new license upon application therefor accompanied by a fee of twenty-five dollars.

Section 7. Section 12 of said act is hereby amended to read as follows:

Sec. 12. Each person licensed under this act shall, on or before the first day of January of each year, after a license is issued to him as herein provided, pay to said board of chiropractic examiners a renewal fee of not less than five dollars nor more than ten dollars, to be fixed annually by the board. The secretary of the board shall, on or before November first of each year, mail to all licensed chiropractors in this state, a notice that the renewal fee will be due on or before the first day of January next following. The failure, neglect or refusal of any person holding a license or certificate to practice under this act to pay said annual fee during the time his or her license remains in force shall, after a period of sixty days from the first day of January of each year, ipso facto, work a forfeiture of his or her license or certificate, and it shall not be restored except upon the written application therefor within a period of two years from delinquent date and the payment to said board of a delinquent penalty of ten dollars, together with all renewal fees delinquent, provided that such licentiate who reinstates said license or certificate within the period of two years shall not be required to submit to an examination for the reinstatement of such certificate.

Section 8. Section 13 of said act is hereby amended to read as follows:

Sec. 13. Chiropractic licentiates shall observe all state and municipal regulations relating to the reporting of communicable diseases, and shall sign birth and death certificates and make the required reports and file them with the proper authorities as required by law and such reports shall be accepted by the officers of the departments to which they are made.

COMPONENT COUNTY MEDICAL SOCIETIES

KERN COUNTY

The Kern County Medical Society met in regular session at the Mercy Hospital in Bakersfield on Thursday evening, October 20. Dr. Harry Lange presided.

Dr. Seymour Strongin suggested that a committee be appointed to arrange for the annual meeting and dinner. Doctors Strongin, Lloyd Fox, and Jack Nicholson were appointed.

The Secretary read a report of the committee on the campaign of Dr. Walter S. Franklin for the office of Lieutenant-Governor of California.

Dr. Arthur H. Kegel of Los Angeles presented a paper on the subject, *Thyroid Disease*. He reported on the papers given at the International Thyroid Conference which he attended recently. Recent aspects of endocrinology were stressed.

The meeting was then adjourned. Refreshments followed.

S. M. Loven, *Acting Secretary*.

PLACER COUNTY

The Placer County Medical Society held its October meeting at the Freeman Hotel in Auburn on October 22. The meeting was called to order by the president, Dr. C. E. Lewis. There were present the following members and visitor: Doctors Lewis, Russell, Peeke, March, Weddle, Karo, Louis E. Jones, Miller, Empey, Lundegaard, Peers, Banks, and Smith. Visitor was Dr. E. A. Casey of Grass Valley.

The application of Dr. Earl A. Casey of Grass Valley for membership was read for the second time. Doctor Casey was unanimously elected.

A third application for membership was read and, after some discussion, it was moved, seconded and carried, that the application be laid on the table.

A letter from Dr. Ellen S. Stadtmuller, Chief of the Bureau of Child Hygiene, State Department of Public Health, was read in which a meeting on pediatrics was suggested. The Secretary was instructed to notify Doctor Stadtmuller of the decision of the members to coöperate.

Following the reading of the correspondence, President Lewis brought up the discussion of a program for a campaign to defeat Proposition No. 2 (State Humane Pound Act). Literature from the California Society for the Promotion of Medical Research was distributed by the Secretary. Committees were formed to contact all service clubs within the county society limits and to make arrangements for talks before these bodies. On motion by Doctor Miller, seconded by Dr. Louis E. Jones, it was unanimously carried that the Secretary be authorized to have a half-page advertisement in each of the local papers, the cost of these advertisements to be paid out of the funds of the Society. There was considerable discussion regarding the splendid article and illustrations on antivivisection in the current issue of *Life*.

The Secretary was very much impressed by the alertness of the members of the Society as to the dangers of No. 2, and the evident enthusiasm for the defeat of this vicious bill.

* * *

The Placer County Medical Society held its annual meeting at the Freeman Hotel in Auburn on Saturday evening, November 5, Dr. C. E. Lewis, the president, presiding.

The Secretary's report and the Treasurer's report were read and accepted.

The application of Dr. Nathan A. Dubin of Lincoln, for transfer from the San Diego County Medical Society to the Placer County Medical Society was read for the second time. Doctor Dubin's application was unanimously accepted.

The following officers were elected to serve for the ensuing year: William M. Miller of Auburn, president; Lucas W. Empey of Roseville, vice-president; Robert A. Peers of Colfax, secretary-treasurer. Lucas W. Empey, as delegate, and Mildred E. Thoren, as alternate, hold their terms over for another year.

This being the annual meeting for the election of officers, no literary program was presented.

* * *

The Placer County Medical Society held a special dinner meeting at the Freeman Hotel in Auburn on Monday evening November 14, for the purpose of honoring our State president, Dr. W. W. Roblee of Riverside. President William M. Miller presided. In addition to the guest of honor, there were present eighteen members and also Dr. George H. Kress of San Francisco, Secretary of the California Medical Association and Editor of California

AND WESTERN MEDICINE; Dr. F. N. Scatena of Sacramento, Councilor for the Eighth District; and Dr. Walter E. Weddle of North Sacramento.

President Miller introduced our district councilor, Doctor Scatena. Doctor Scatena introduced President Roblee and President Miller introduced Doctor Kress.

Doctor Roblee outlined the work of the State Association, going into considerable detail regarding the various benefits to individual members because of their affiliation with the large State group. He sketched the history of the movement for socialized medicine in this country, including the activities of various Foundations, of the Federal Government, and of groups in this state. He portrayed the work that has been done by the State Association over a period of many years in an effort to develop a suitable plan for health insurance which would protect the best interests not only of the physician but also of the public whom the doctors serve. He also reported on the recent Council meeting of November 12 at which time a committee reported on a proposed plan for health insurance, sketching the highlights of the plan, which will be presented at a special meeting of the House of Delegates to be held in Los Angeles on December 17 of this year.

Doctor Kress elaborated on this plan and went into details regarding the benefits which will accrue not only to organized medicine but to the public. Among other topics discussed by Doctor Kress was the plan of the State Postgraduate Committee. He expressed the wish that a representative from our society be appointed in the formulation of plans for a postgraduate conference in this district. He closed his address with a strong plea to the members to call upon the Central Office for assistance at any time, stating that the Association Secretary was eager to be of service to the individual members as well as to the organization as a whole.

Doctor Scatena told of his experience in the Intercoast Hospitalization Insurance Association, pointing out some of the pitfalls of the health insurance work, as well as the benefits.

President Miller called upon Dr. L. W. Empey, vice-president of our society and our delegate. Doctor Empey expressed his views regarding the proposed plan and, in addition, asked a number of pertinent questions. As he is to be a delegate to the proposed meeting of the House of Delegates, he asked that a special meeting of the Placer County Medical Society be held prior to the meeting of the House of Delegates. Doctor Scatena stated that as soon as he received a digest of the contemplated plan which will be presented to the House of Delegates he would get in touch with the President or the Secretary and then a special meeting, mutually convenient, could be called.

Following Doctor Empey's remarks, the meeting was open for general discussion in which many of the members took part. It was the sense of those present that this had been one of the most interesting and illuminating meetings of our society.

The following motions were presented by the Secretary.

1. That it is the sense of the members of the Placer County Medical Society that they express their confidence in the State Association Council in its efforts to reach satisfactory conclusions regarding medical and hospital care for the low-income groups and that its individual members of the Placer County Medical Society pledge themselves to coöperate to the greatest possible degree toward the successful carrying out of the plans and conclusions as may be determined at the coming meeting of the House of Delegates on December 17. Seconded by Doctor March, and carried.

2. That President Miller be appointed as a Committee of One to represent the Placer County Medical Society in the plan to carry out postgraduate educational work in this district. Seconded by Doctor Empey, and carried.

ROBERT A. PEERS, *Secretary.*

SACRAMENTO COUNTY

The regular meeting of the Sacramento Society for Medical Improvement was called to order by President Dave Dozier at the Auditorium on October 19.

There were ninety-eight members present.

Dr. Leo Eloesser, Clinical Professor of Surgery at Stanford University, gave a very interesting, as well as instructive, talk on his *Experiences in Spain During the Present Civil War.* Doctor Eloesser stressed the organization and equipment of the hospitals, as well as the types of war wounds encountered. The talk was illustrated with lantern slides, showing some of the hospitals established at the front and some of the ambulance units. The talk elicited many questions.

The applications for membership of Drs. A. F. Wallace and C. H. McDonnell were read for the second time and voted upon. Both were unanimously elected to membership in the Society.

Doctor Dozier discussed the present status of the Agricultural Workers' Health and Medical Association, now functioning in this area.

G. E. MILLAR, *Secretary.*

SAN BERNARDINO COUNTY

The annual meeting of the San Bernardino County Medical Society was held at Mapes Cafeteria in San Bernardino on Tuesday, October 11, at 7 p. m. There were eighty members and guests present.

President Williams explained the Council's feeling regarding a credit agency for the Society.

A motion was made and seconded that the men proposing to do the work of a credit agency be permitted to talk for ten minutes before the Society at the next meeting. Passed.

Dr. C. A. Love, Jr., made an announcement regarding the post cards for Dr. Walter S. Franklin, candidate for lieutenant-governor.

Dr. P. M. Savage, Sr., made a short address in behalf of Doctor Franklin's campaign. He also urged the members to defeat Proposition No. 2 (State Humane Pound Act).

The program of the evening was as follows: *Highlights of a Trip to Europe* by J. A. Champion of Colton; *Life—What Is It?* by A. B. Cooke of Los Angeles.

ARTHUR E. VARDEN, *Secretary.*

SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held in the clubrooms of the Medico-Dental Building, Stockton, on November 3. The regular meeting was preceded by the customary supper meeting at the Hotel Wolf.

The regular meeting was called to order by President A. C. Boehmer at 8:25 p. m.

A communication from the Metropolitan Life Insurance Company relative to reëndorsement of new standing orders for the Visiting Nurse Service was presented to the Society for endorsement. It was moved by Dr. Dewey Powell, seconded by Dr. Frank Doughty, that the question of endorsement of these standing orders be referred to the Board of Directors and their action be final. The motion carried.

Dr. Dewey Powell expressed thanks for the coöperation given by the Woman's Auxiliary to the San Joaquin County Medical Society in the distribution of literature on Proposition No. 2 (State Humane Pound Act). He especially commended Mrs. George Wever, President of the Auxiliary, on her splendid help.

The election of officers for 1939 were held, the following members being elected: Neill P. Johnson, president; Frank Vieira, first vice-president; R. L. Owens, second vice-

president; G. H. Rohrbacher, secretary-treasurer. Directors—J. O. Eccleston, G. K. Wever, V. R. Ross, H. C. Rixford, E. W. Hill, A. C. Boehmer, T. W. Kyddson, L. J. Peterson, and D. R. Powell. Delegates—G. H. Sanderson, Frank Doughty, and Dewey Powell. Alternates—C. A. Broaddus, C. V. Thompson, and R. T. McGurk.

Doctor Rixford introduced the speaker of the evening, Dr. Dave Rytand, who spoke on *Hypertension and the Present Status of Splanchnic Section.* This interesting paper was illustrated by many charts.

The meeting was declared adjourned at 10 p. m., and refreshments were served.

G. H. Rohrbacher, *Secretary.*

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SAN MATEO COUNTY

The meeting of the San Mateo County Medical Society was held on Wednesday, October 26, in the banquet room of the Benjamin Franklin Hotel. Doctor Hartzell Ray presided.

The Chairman announced that Dr. Ivan T. Budaeff had been elected to membership in the Society at the last meeting of the Board of Directors.

The Secretary made an announcement concerning the work that was being done in an effort to defeat the State Humane Pound Act and expressed his appreciation to the Woman's Auxiliary for the excellent work that it had been doing. He urged all members of the Society not to overlook any opportunity to help kill this measure.

The Chairman announced the action of the Board of Directors at its last meeting concerning nominations of officers for next year, and on motion duly made, and seconded, the Society unanimously approved the action of the Board in making nominations at the October meeting and in presenting the nominations to the Society at its October meeting, owing to the fact that in November the Society was to meet jointly with the Santa Clara Society. The Chairman announced the following nominations made by the Board of Directors: Norman Morrison, president; Carl Benninghoven, vice-president; J. Garwood Bridgman, secretary. No other nominations being made, these members were declared elected.

The Chairman next introduced Mr. Harrison Call, Assemblyman from this district, who first briefly went over the twenty-five propositions to be voted upon in the November elections, presenting both sides of the question and discussing briefly the merits and demerits of the measures. Mr. Call discussed the *Nursing Practice Act* which is to be introduced in the Legislature at its coming session. In the course of his discussion he expressed his feeling, as a layman, that it might be advisable to have a doctor on the Board of Nurse Examiners instead of having an all nurse board, as was provided in the Act.

Doctor Benner expressed the feeling that the Act would place such stringent regulations on the practical nurses that it would be impossible for them to serve patients as they are now doing, and it would make it impossible for patients of limited means to have nursing care of any kind.

Mr. Call answered this observation by stating that practical nurses would be able to continue their work but would have certain restrictions placed on them which would be defined under the Act. The matter was referred to the Legislative Committee for study.

In connection with the proposed investigation of the San Mateo County Department of Public Health, the Chairman announced that the Board of Directors at its meeting in October had voted unanimously to request the San Mateo County Board of Supervisors to petition the United States Public Health Service for such a survey. The Secretary read a letter which had been sent to the Board of Supervisors on September 3, requesting action on the matter. He read a draft of a letter which had been prepared after the Board of Directors at its last meeting had reaffirmed its interest in an investigation and expressed its desire that the County Medical Society follow up the matter and again petition the Board of Supervisors to make the proper formal request required by the Federal Government.

Following the reading of these letters the matter was opened for discussion. Doctor Hanzlik discussed the situation at length, and in conclusion stated that, as a member of the County Medical Society, he felt the Society should go on record in favor of the survey. Doctor Murphy entered into the discussion and stated that he felt the Society should exercise some caution in going into matters of this sort without certain facts to show that a survey was necessary, and questioned the motives of the organizations which felt that an investigation was desirable. It was pointed out to Doctor Murphy by the Secretary that numerous civic bodies throughout the county—the Business and Professional Women's Club, the League of Women's Voters, the Ministerial Council, the University Women's Club, as well as the Labor Council—had definitely stated their stand and felt that there was urgent need for an investigation into the county health set-up. The Secretary further mentioned the attitude of the Board of Education which had recently met with the Public Health Committee, wherein one of its members expressed a lack of confidence in the County Medical Society, owing to the fact that it had taken no action nor announced any stand concerning the County Department of Public Health when there was considerable feeling on the part of the Board of Education, as well as numerous other interested bodies throughout the county to the effect that the County Health Department had failed grossly in the conduct of its duties. The Secretary expressed the opinion that the time had come when the County Society should take a definite stand and demonstrate its leadership in such matters as the present one if the Society proposed to occupy any significant place in county affairs, be they concerned with public health or otherwise. Doctors Knorp and Ray upheld the Secretary in this opinion.

Doctor Cleary reminded the Society of the existence of a Board of Health, established under the county charter, the purpose of which was to act as a committee between the County Department of Public Health and the County Medical Society and asked why the Board of Health had not been made acquainted with this particular problem. Dr. Norman Morrison answered that he was a member of the Board of Health and also sat on the Board of Directors in their discussion, and that he fully concurred with the Board on the action that had been taken.

Dr. Harper Peddicord then expressed the thought that the County Medical Society was not interested in having "some brain truster" come in with radical ideas concerning the conduct of a county department of public health. It was pointed out to Doctor Peddicord that the United States Public Health Service was not composed of "brain trusters" and that several members of the County Medical Society were acquainted with the caliber of men such as Doctor Ford and Doctor Gould, who were attached to the United States Department, and universally concurred in the opinion that, while these men might have their own personal ideas concerning a particular method of dealing with public health problems, at the same time they would conduct an accurate, scientific, fact-finding survey, the conclusions of which would be entirely up to the County Medical Society to reject or accept.

Dr. Ralph Howe expressed doubt concerning the value of the survey. To this remark it was answered that, irrespective of the results of any investigation, the County Medical Society would be grossly neglecting its duties if it failed to heed the demands of numerous civic and educational groups who, rightly or wrongly, felt that public health conditions in San Mateo County should be examined by an independent investigation. The Secretary was asked to re-read the draft of the letter he had prepared, and cer-

tain modifications were suggested. Doctor Benner made a motion that the Secretary be empowered to appear before the Board of Supervisors and read this letter to the Board. This motion was seconded, and passed unanimously.

J. Garwood Bridgman, *Secretary.*

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TULARE COUNTY

A dinner meeting of the Tulare County Medical Society was held at the Hotel Johnson in Visalia on Sunday, October 23. Invitations to this meeting were sent to the Kings County Society and to the Woman's Auxiliary of the Tulare County Medical Society. The following members and guests were present: Dr. Ray Rosson, Dr. and Mrs. F. E. Hellbaum, Dr. and Mrs. F. R. Guido, Dr. and Mrs. W. C. Zeller, Dr. and Mrs. W. D. Parkinson, Dr. and Mrs. P. S. Barber, Dr. and Mrs. C. S. Ambrose, Coroner Roy Brooks, Doctors H. L. Falk, Frank Chamlee of Hanford, J. R. Filmore, Annie L. Bond, Dr. and Mrs. W. A. Winn, Dr. and Mrs. Leonard Carpenter, Dr. and Mrs. Karl F. Weiss, Dr. and Mrs. Ray Cronemiller, Doctors I. H. Betts, E. R. Zumwalt, L. Eloesser, R. S. Hardin, L. L. Seligman, I. M. Lipson, W. F. Burton, Dr. and Mrs. S. S. Ginsburg, Dr. and Mrs. Austin Miller, Dr. and Mrs. Ellis Sox, Dr. and Mrs. F. G. Powell, Dr. and Mrs. A. W. Preston, Dr. J. Seiberth, and Mesdames Gray, Tracy, Melvin, and guests.

The speaker of the evening was Dr. Leo Eloesser of San Francisco, who spoke on his *Experiences in the War in Spain.* The talk was illustrated by lantern slides. This was an unusually interesting address.

Karl F. Weiss, *Secretary.*

CHANGES IN MEMBERSHIP

New Members (44)

Alameda County

Edgar C. Dawson

Butte County

J. Radford Linn

Los Angeles County

John A. Biggers
Edward W. Boland
Joseph F. Griggs
Robert Warner King
Clement J. Molony
David H. More
Ben A. Newman
Edward L. Sugar
John P. Vento
Richard Hugh Watt

Riverside County

Glen R. Halverson

Sacramento County

Curtis H. McDonnell
A. F. Wallace

San Francisco County

Ben Colloff
Charles Cuthbert Fahlen
Crane Gardenier
Louis Bruce Goldstein
Carl H. Hartwig
Eugenia L. Herron
George K. Herzog, Jr.
Francis T. Hodges
Jerome Konigsberg
Donald Roy Pratt
Manfred U. Prescott
Samuel Osipow
Miriam H. Rutherford
Minnola Stallings
Emil S. von Dessoneck

San Joaquin County

F. A. Dietrich
Phillip V. Lamb

San Mateo County

Ivan T. Budaeff

Santa Barbara County

Ralph M. Bell
Roland J. Brines
Donald M. Maxwell
James Harold Saint
Harold F. Tompkins

Santa Clara County

John Blum
Salvatore Campisi
J. Alison Cary
Leon Fox
Alexander Rogozen

Ventura County

James W. Moore

Transferred (2)

Lawrence M. Knox, from Monterey County to Alameda County.

Edwin A. Patterson, from Merced County to Alameda County.

In Memoriam

Bliss, Walter Parks. Died at Pasadena, November 4, 1938, age 49. Graduate of Columbia University College of Physicians and Surgeons, New York, 1916. Licensed in California in 1921. Doctor Bliss was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Gates, Mark Gorman. Died at Kernville, November 15, 1938, age 52. Graduate of University of California Medical School, 1910. Licensed in California in 1911. Doctor Gates was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Lancaster, Jesse Samuel. Died at Torrance. November 4, 1938, age 55. Graduate of Northwestern University Medical School, Chicago, 1910. Licensed in California in 1913. Doctor Lancaster was a member of the Los Angeles County Medical Association, the California Medical Association, and a Fellow of the American Medical Association.

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Tobin, Peter Arthur. Died at San Francisco, November 21, 1938, age 57. Graduate of the University of Cincinnati College of Medicine, 1912. Licensed in California in 1914. Doctor Tobin was a member of the San Francisco County Medical Society, the California Medical Association, and the Americen Medical Association.

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Vecki, Victor G. Died at Berkeley, November 16, 1938, age 80. Graduate of Medizinische Fakultät der Universität Wien, 1881. Licensed in California in 1892. Doctor Vecki was a retired member of the San Francisco County Medical Society, the California Medical Association, and a Fellow of the American Medical Association.

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OBITUARIES

Edward Thomas Dillon
1877–1938

In the early hours of dawn, October 14, Dr. E. T. Dillon succumbed from an acute circulatory accident which came on suddenly some eighteen hours previously while he was on duty at St. Vincent's Hospital. By his death our community lost a true physician and a man of remarkable character.

Doctor Dillon, a native of Los Angeles, received his premedical education at the Los Angeles High School and old St. Vincent's College, which later became Loyola University. Upon receiving the degree of M. S. from St. Vincent's College in 1897, he matriculated in the School of



Edward Thomas Dillon
1877–1938

Medicine of the University of Southern California, located at that time on Buena Vista Street, now known as North Broadway. Dr. J. P. Widney was dean of the Medical School at that time, and prominent among the members of the faculty were Doctors George W. Lasher, Joseph M. King, and Claire W. Murphy, all of whom Doctor Dillon held in the highest esteem. Graduating in 1901 he served his internship under the superintendency of Dr. Ernest A. Bryant at Los Angeles County Hospital, which then supported but three interns. During his senior year in medicine, he also served as extern at the hospital, a position since abolished. Upon completion of his hospital service, he became Assistant to Dr. A. M. Smith, Police Surgeon. After pursuing special studies he entered practice, ultimately specializing in surgery. In the years following, up until 1910, he was associated with Doctors E. A. Bryant, F. K. Ainsworth, and H. G. Cates, surgeons for the Southern Pacific, Pacific Electric, and Los Angeles railways. He later became surgeon for the Southern Pacific Company, and was for more than twenty-five years surgeon for the Standard Oil Company, in the southwest area. He had also been surgeon for local councils of the Knights of Columbus.

Immediately upon graduation, he became associated with St. Vincent's Hospital, to which institution he was most loyally devoted throughout his entire career, serving as chief of staff and chairman of the Executive Committee. He possessed an inexhaustible determination to develop the highest type of scientific medicine in rendering service to the sick, and was among the pioneers in raising the standards of hospitalization. He participated in the work of the National Catholic Hospital Association and, in collaboration with Rev. C. B. Moulinier, contributed much to its development.

Though taking no active part in scholastic work Doctor Dillon nevertheless was a truly great teacher, with a rare ability to inspire the students and younger medical men. He was most devoted to his chosen profession and possessed an almost uncanny diagnostic ability. His loyalty to the sick was unbounded, and at times he was almost belligerent in his efforts in their behalf, and in the stimulation of his associates, entirely unmindful of his personal interests. In addition to his knowledge of medicine, he was endowed with a profound sense of the fitness of things in life and a remarkable philosophy. His associates eagerly sought and respected his counsel at bedside, in conference and personal relations.

The loss of a colleague possessed of such rare personality is keenly felt today by his numerous friends, but will only reach its real significance as time passes with the realization that his wisdom and comforting advice is lost to us.

Doctor Dillon was a member of the Los Angeles County Medical Association, California State Medical Association, American Medical Association, Pacific Coast Surgical Society, and the Clinical and Pathological Society of Los Angeles. He was also a charter member of the American College of Surgeons. He served with Dr. Granville MacGowan as co-chairman of the Appeal Board of the United States Army Draft, 1917–1918, and was counselor of the Los Angeles Chapter of the American Red Cross. He also held memberships in well-known civic and social associations and clubs. He was devoted to athletics in his college days, particularly football, playing upon teams of his high school, St. Vincent's College, and the Los Angeles Athletic Club.

He was born April 13, 1877, the son of Richard Dillon and Mary (Hennessy) Dillon. On January 29, 1907, he married Miss Laura Lynn Doran who survives with five children of the union: Edward T. Dillon, attorney; Richard Dillon, who is completing his medical course at Stanford University; Mary, Laura, and Katherine Dillon, all residing in the family residence, 4085 West Seventh Street, Los Angeles.

Funeral services were conducted October 17, from St. Vibiana's Cathedral with Solemn High Mass celebrated by his pastor, Rev. Victor Follen, and the memento being delivered by Right Reverend Monsignor John McCarthy. Interment was in Calvary Cemetery.

Henry Dietrich
Frank J. Breslin
John C. Ruddock.

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Emma Sutro Merritt
1856–1938

In the recent death of Dr. Emma Sutro Merritt the profession lost one of its pioneer women in medicine and the city lost one of its famous citizens, whose heart and money, most of her life, were centered in San Francisco and in the interests of the city she loved. Her death severed another link between this city and its golden past when, at the age of eighty-two, she succumbed from a year's illness. Doctor Merritt was born in San Francisco December 15, 1856, in what is now Chinatown. Her father, Adolph Sutro, prosperous pioneer merchant, lived there in a fine residence. A rich man's daughter, with no need for a vocation, and when few women had the courage to study medicine, she elected to choose our profession as a career.

She was educated in our schools, later graduated from Vassar, and entered what is now the University of California Medical School. Great and discouraging criticism was thrust upon her as a medical student by the resentful men, but one of them, George W. Merritt, defended her. They later were married in London in 1883, and attended the same medical schools abroad. Both practiced and taught medicine in this city, the husband until his death, the wife until her father's death in 1898 when she was called upon to shoulder the responsibility of acting as executrix of his vast estate.

Doctor Merritt had no children, but upon the death of her brother Edgar she adopted his son, Edgar, Jr., who with his two sisters, Marian and Rose, lived with her until her death. Doctor Merritt died in the famous family home at Sutro Heights above the Cliff House. With her death the city comes into complete possession of Sutro Heights. She was once offered a vast price for this property by William Wrigley, but refused the offer because of her love for her native city. In her passing our Society has lost a pioneer, a retired member, a noteworthy teacher, and a citizen known by many for her munificence.

H. M. F. Behneman.

THE WOMAN'S AUXILIARY TO THE CALIFORNIA MEDICAL ASSOCIATION †

MRS. CLIFFORD A. WRIGHT.....President
MRS. FRED H. ZUMWALT.....Chairman on Publicity
MRS. FRANK H. RODIN..Assistant Chairman on Publicity

News Letter

Dear Auxiliary Members:

Congratulations to the members in each County Auxiliary who worked so hard and diligently to help defeat the antivivisection bill on the November ballot. The people have shown their appreciation of the need and importance of scientific medical research by voting against a legislative measure that would deprive them of the benefits of new discoveries in combating disease.

The radio has become one of the most important mediums of entertainment and education. The American Medical Association is using this means to entertain and educate the public in a very interesting program over the National Broadcasting Company's network entitled "Your Health."

There will be thirty-six broadcasts, one each week on Wednesday morning at 11 a. m. Pacific standard time. The first of these dramas was broadcast on Wednesday, October 19.

The theme is developed on such subjects as: Personal Health; How to Live; Let's Eat; Dodging Contageous Diseases; Health Tomorrow; Community Health; Health Education; Mothers and Children; Using Health Knowledge. For weekly titles please refer to the October issue of the *Hygeia Health Magazine,* page 938.

As these broadcasts are on what is known in radio as a sustaining basis, the time is furnished gratis by the radio network and local stations. No revenue is derived from the programs. Therefore, local stations may or may not take the program. If the radio station affiliated with the National Broadcasting Company in your community does not broadcast these programs, the County Auxiliary members may aid the American Medical Association by urging their local stations to take these programs.

Listen to these broadcasts yourself and ask your friends to listen.

Write to the National Broadcasting Company if you like the programs and to the American Medical Association if you do not, stating why.

Inform organizations about it: such as women's clubs, child study groups, Parent-Teacher Associations and schools.

In a recent issue of the San Francisco Board of Education bulletin, the programs, "Your Health," were recommended to the principals and teachers.

Let us all assist the American Medical Association in this educational and entertaining program by developing a large listening audience.

With most cordial holiday greetings.

Sincerely yours,

MRS. FRANK H. RODIN.

Component County Auxiliaries

Butte County

The Woman's Auxiliary to the Butte County Medical Association held its first fall meeting on Tuesday evening, October 18 at the home of one of its board members, Mrs. J. G. Hepplewhite, assisted by Mrs. P. L. Hamilton.

After reminiscing over the events of the past year, all the members agreed that the first year of the Auxiliary's existence was promising for the future. Although the activities were largely social, they provided many advantages.

Interesting plans were formulated for the winter. The women will meet at the homes of the respective members on the same evening that the doctors have their meeting at the hotel.

Contra Costa County

Although small in number and the distances between towns far, the Contra Costa County Auxiliary is fortunate in having a group of women who consider the effort worth while and are developing an interesting program.

The Auxiliary met on Tuesday evening, November 8, with eight members attending. This was a business meeting to discuss the program for the coming year. The membership decided that activities combining social and study features would be of most interest and value.

As Mrs. Allen Morrow of Richmond, vice-president, could not continue in office at present, Mrs. M. C. Bolender of Walnut Creek was elected to fill the vacancy.

Mrs. M. L. Stauffer of Pittsburg, president, and Mrs. Bolender were delegated to attend a meeting at the home of Mrs. William H. Sargent in Oakland on November 16, to discuss *What can the Auxiliaries do in a Philanthropic Way.*

The committee chairman for the campaign to defeat the antivivisection bill in the recent state election reported that much good work had been done.

After the business meeting the ladies joined the doctors in the hotel dining room for refreshments.

MRS. THOMAS J. DOZIER, *Chairman of Publicity.*

Los Angeles County

The Los Angeles County Auxiliary was hostess to leaders of women's clubs to hear speakers on legislation and the need to defeat the State Humane Pound Act (Proposition 2).

The Auxiliary met for luncheon on Tuesday, October 25, at the Beverly Hills Hotel. There were 202 members and guests present.

The president, Mrs. William H. Leake, presided and introduced the following guests from the speaker's table: Mrs. Clifford A. Wright, president Woman's Auxiliary to the California Medical Association; Mrs. George H. Cook, past president, Ebell Club; Mrs. Abraham Lehr, president Crippled Children's League; Mrs. Lichtenwater, president Woman's Auxiliary to the Los Angeles County Dental Association; Mrs. Catherine Moore, Cosmos Club; Mrs. Catherine Cornell, chairman of legislation, Woman's Auxiliary to the Los Angeles Chamber of Commerce; Mrs. John Raven, vice-president, Catholic Women's Club; Mrs. Louise W. Watkins, past president, Friday Morning Club.

Dr. John W. Crossan, Mr. Ben Read and the Reverend R. Anderson Jardine were the guest speakers. Their subjects were *Legislation and the Need to Defeat the Humane Pound Act.*

An appeal was made by a representative of the Community Chest who also commended the medical profession for the charitable work done throughout the year.

Mrs. John Martin Askey, Chairman of Legislation, reported that her committee had worked day and night to defeat the antivivisection bill. Members of the committee contacted practically every club in Los Angeles County to urge that they have a speaker on the subject and at-

† As county auxiliaries of the Woman's Auxiliary to the California Medical Association are formed, the names of their officers should be forwarded to Mrs. Frank H. Rodin, Assistant Chairman of the Publicity and Publications Committee, 2457 Bay Street, San Francisco. Brief reports of county auxiliary meetings will be welcomed by Mrs. Rodin and must be sent to her before publication takes place in this column. For lists of state, and county officers, see advertising page 6. The Council of the California Medical Association has instructed the Editor to allocate two pages in every issue to Woman's Auxiliary notes.

tended all meetings to distribute pamphlets and literature. Circulars, cards, letters, and pamphlets were distributed to all doctors' offices to be mailed by them to their patients.

Mesdames Raphael Dunlevy and Samuel D. Ingram were in charge of reservations and Mesdames Dougherty and Irish arranged the floral decorations.

On Tuesday, December 13, Mrs. William H. Leake, president, will entertain the entire membership of the Woman's Auxiliary to the Los Angeles County Medical Association at tea in her home at Beverly Hills.

Mrs. Karl O. Von Hagen, *Chairman of Publicity.*

Orange County

The November meeting of the Woman's Auxiliary to the Orange County Medical Association was held at the Anaheim Ebell Club with thirty members and guests present. The president, Mrs. Hiram Currey, presided.

Mrs. K. H. Sutherland, program chairman, introduced Mrs. E. H. Crawford, secretary of the Orange County Tuberculosis Association, who showed two films: *Let My People Live* and *Diagnostic Procedures.* Dr. K. H. Sutherland, County Health Officer, reviewed the films and discussed the tuberculosis situation as it existed in Orange County.

At the close of the meeting refreshments were served from a beautifully appointed table decorated in fall colors. The hostesses of the day were Mesdames L. W. Wilson, E. J. Steen, Claude Steen, John Wood, H. A. Johnston, H. C. Nelson, Ralph Duncan, and Glen Curtis.

Mrs. G. Wendell Olson, *Publicity Chairman.*

Riverside County

The first regular meeting of the Woman's Auxiliary to the Riverside County Medical Association was held on October 10, at 8 p. m., at the Riverside Community Hospital. The president, Mrs. W. W. Roblee, presided with twenty members and prospective members present.

A very interesting and helpful discussion of Amendment No. 2, the Humane Pound Act, was given by Dr. B. O. Raulston, of the University of Southern California.

Plans for the coming year were discussed and following the business meeting a social hour was enjoyed. The doctors joined the ladies for refreshments, which were served by Mesdames A. W. Walker, C. R. Geith, A. W. Miller, and H. L. Ratliff. Mrs. T. A. Card, *Secretary.*

Sacramento County

Community service will be the purpose of the winter activities of the Woman's Auxiliary to the Sacramento Society for Medical Improvement, it was announced at the October meeting held at the home of Mrs. Donald McNeil. The president, Mrs. George Spencer, presided.

Members will assist in Red Cross work, Christmas tuberculosis seal distribution, activities of the Better Films Board, and the support of the Home for Crippled Children.

Mrs. Norris Jones, program chairman, introduced Dr. W. J. Ven Den Berg, local physician, and Mr. Ben Read, executive secretary of the California Public Health League, who discussed the *Humane Pound Act and Health Legislation.*

Mrs. John D. Lawson and Mrs. Ruth Dunlap presided at the tea table, and were assisted by Mesdames Orrin Cook, Hans Schluter, J. H. Yant, and Donald McNeil.

Mrs. D. S. Pulford, *Chairman of Publicity.*

San Diego County

The members of the newly organized Woman's Auxiliary to the San Diego County Dental Society were the guests of the Woman's Auxiliary to the County Medical Association at their luncheon meeting which was held October 17, at the University Club. There were nineteen guests and forty-one members present.

Dr. L. C. Kinney was the guest speaker, who gave a very interesting talk on *Legislation.*

Mrs. H. K. Albertson, *Publicity Chairman.*

San Francisco County

The regular meeting of the San Francisco County Woman's Auxiliary was held on November 15, at 1:30 p. m., in the beautiful home of the San Francisco County Medical Society. The president, Mrs. Thomas E. Gibson, presided, with about eighty members present.

The guest speaker, Dr. George Warren Pierce, spoke on *Cosmetology and Plastic Surgery,* demonstrated with lantern slides.

The standing committees reported on the progress of work done in their respective departments.

The committee composed of members who had volunteered their services to work to defeat the Humane Pound Act on the November ballot served unceasingly for days. Thousands of stickers were pasted on pamphlets. Circulars, letters, and cards were distributed to all the doctors, dentists, and clinics in the county.

After the business meeting, tea was served in the library to members and guests. An interesting arrangement of fruit centered the beautifully appointed tea table. Mrs. Clain F. Gelston and Mrs. John D. Humber and their committee were the hostesses of the day.

Mrs. Clain F. Gelston, *Publicity Chairman.*

San Joaquin County

The attendance of the meetings of the Woman's Auxiliary to the San Joaquin County Medical Association is gradually increasing was reported at the November meeting held at the home of Mrs. J. W. Barnes. The president, Mrs. George K. Wever, presided, with twenty-one members present.

The speaker was Mrs. A. P. Harrison, chairman of legislation of the League of Women Voters. *Legislative Initiatives on the November Ballot* were discussed.

Mrs. George K. Wever, *President.*

Santa Barbara County

A joint meeting of the Santa Barbara County Medical Society and the Woman's Auxiliary was held on the evening of October 10 at the Bissell Auditorium of the Cottage Hospital.

The guest speaker was Dr. Louis Packard of Bakersfield, who spoke on the *Evils of the Humane Pound Act.*

After Doctor Packard's talk, the members of the Auxiliary held their business meeting in an adjoining room. New chairmen of the various committees were appointed as follows: Mesdames Alfred Wilcox, Program; Richard McGovney, Hygeia; Harry DeVighne, Girl Scouts; C. Z. Nicholas, Telephone; William R. Hunt, Membership; C. T. Roome, Hospitality; C. W. Henderson, Publicity. The Auxiliary will, as usual, sponsor a table at the Red Cross campaign.

Mrs. Van Paing, chairman of the Essay Contest Committee, reported through the president that thirty essays were submitted by the pupils of the Santa Barbara Junior High schools last June. Two prizes of $5 each were given to the pupils who wrote the best essay on any article chosen by them from the *Hygeia Health Magazine* during 1938. These pupils attend the Carpinteria and Lompoc schools in Santa Barbara.

Preceding the meeting at the auditorium, the officers of the County Medical Society and the Woman's Auxiliary, their wives and husbands gathered for dinner at the El

Paseo and had as their guests Doctor and Mrs. Lindsay of Pasadena and Doctor and Mrs. Packard of Bakersfield.

Mrs. C. W. Henderson, *Publicity Chairman.*

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Santa Clara County

The Woman's Auxiliary to the Santa Clara County Medical Association entertained three state officers at their November meeting. The members and guests met for luncheon at the La Molle House restaurant.

The president, Mrs. M. D. Baker, presided and introduced the guests: Mrs. Hobart Rogers, junior past president of the State Auxiliary; Mrs. Lawrence M. Knox, councilor for fifth district and chairman for the convention of the Woman's Auxiliary to the California Medical Association to be held next May at Del Monte; and Mrs. William H. Sargent, who was the state officer that organized the women of Santa Clara County into an Auxiliary in 1934.

Mrs. Russell V. Lee, program chairman, introduced the guest speaker, Mr. E. M. Smith of San Francisco, who spoke on *Medical and Hospital Insurance.*

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Santa Cruz County

The Woman's Auxiliary to the Santa Cruz County Medical Society met at the home of the president, Mrs. Alfred L. Phillips, Monday, October 31, with eleven members present.

Each member distributed literature on the Humane Pound Act to the women's clubs in Santa Cruz County and to their friends and neighbors.

Mrs. R. C. Alsberg, *Recording Secretary.*

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Tulare County

Sunday, October 23, the members of the Tulare County Medical Society and the Woman's Auxiliary met for dinner and had as their guest, Dr. Leo Eloesser of San Francisco.

The speaker of the evening was Doctor Eloesser, whose subject was: *The Organization of Medical Units in Spain.*

This meeting was the most successful and had the largest attendance since the organization of the Auxiliary.

Mrs. W. B. Parkinson, *Corresponding Secretary.*

United States Institute of Health.—From director and two attendants stationed in a single Marine Hospital room at Staten Island, to director plus 728 assistants (and 168 active, nonresident consultants), housed in six vast buildings in a sixty-acre greenwood near Washington, D. C.—such has been the physical growth of the National Institute of Health, major research division of the United States Public Health Service, in the half-century since its founding in 1887.

While the Institute is its most important research laboratory in size and number of employees, it must not be thought of as the only such laboratory conducted by the Service.

"A number of temporary laboratories have been set up in the field for various investigations," explained Dr. A. M. Stimson, Medical Director, United States Public Health Service, in "A Brief History of Bacteriological Investigations of the United States Public Health Service" (Supplement 141 to the Public Health Reports), "and the Marine Hospitals are all provided with clinical laboratories in some of which research has been conducted.

"In addition, a plague laboratory has been maintained almost continuously in San Francisco since the first outbreak of plague there. A laboratory for the study of spotted fever and other diseases, at Hamilton, Montana, has been in almost continuous operation since the Service became interested in spotted fever in that state; and a laboratory for the exclusive investigation of stream pollution and sewage disposal has been in operation at Cincinnati for many years. Research work on leprosy has been conducted at Honolulu, the island of Molokai, and the leprosarium at Carville, Louisiana."

Laboratories for the investigation of malaria are located at Columbia, South Carolina, and Savannah, Georgia. Recently a laboratory for investigation of yellow fever problems has been established in Miami, Florida.

Throughout his detailed description of public health problems investigated inside and outside of these laboratories, Doctor Stimson has woven into his review of fifty years of medical progress a background of history of men and institutions which makes the report a valuable and interesting handbook, both to the layman and scientist. Thirty-eight separate divisions take up the bacteriological work done by Public Health Service researchers in fields varying from "Anaphylaxis" (the causes and prevention of reactions to inoculation) through "Anthrax," "Leprosy," "Milk," and "Psittacosis," to "Shellfish." In connection with each division, references are given both to the scientists mainly concerned in the studies and their major contributions.

Under the heading "Plague," is retold the story of "the sordid and distressing annals lasting over many months, extending to the city and state governments, into local politics, the press, the agencies of the law, and even threatening international complications."

"It is thus within the power of a few microscopic plants on a glass slide, granted certain antecedents," says Doctor Stimson, "to cause such upheavals in the affairs of man. The health agencies appear from the record to have come through the melee with at least honor unimpaired, but the political agencies and the press made but a poor showing in the cause of public service. Even the law, which we must not criticize, gave an example of how decisions arrived at, presumably in accordance with its rules and traditions, may protect undeserving persons and do the public an enormous disservice."

Longer sections are devoted to "Water," and "Control of Biologics." The first reviews the important part the Service has played in bringing about measures responsible for the marked reduction in water-borne diseases since it began its studies in the early 1890's. The latter deals with those "bacteriological activities incidental to the legal control of the manufacture and sale of products used in the prevention and treatment of human diseases, such as serums, vaccines, viruses, and the like." Subsections here take up matters of anaphylaxis in further detail, and unconfirmed "cures."

"Yellow fever," Doctor Stimson declared, "was familiar to officers of the Marine Hospital Service previous to its reorganization (as the Public Health Service) as a visitation which they encountered in their tours of duty at Atlantic and Gulf coast stations and on the Mississippi River. They witnessed it, diagnosed it on clincal evidence, treated it, some of them contracted it, and a few died of it. It was, however, a medical rather than a public health problem with them until after the reorganization of the Service in 1870, and especially after the quarantine acts of 1890 and 1893, when it became a responsibility and a nightmare."

There follows a brief history of this once-terrifying scourge which first appeared on American soil in 1668.

The record ends with a passing tribute to the names of six obscure Service doctors who died of yellow fever, martyrs to science "at the very beginning of their medical careers."

Few of us take the pains to study the origin of our cherished convictions; indeed, we have a natural repugnance to so doing. We like to continue to believe what we have been accustomed to accept as true, and the resentment aroused when doubt is cast upon any of our assumptions leads us to seek every manner of excuse for clinging to them.

The result is that most of our so-called reasoning consists in finding arguments for going on believing as we already do.—Bourne.

MISCELLANY

Under this department are ordinarily grouped: News Items; Letters; Special Articles; Twenty-five Years Ago column; California Board of Medical Examiners; and other columns as occasion may warrant. Items for the News column must be furnished by the fifteenth of the preceding month. For Book Reviews, see index on the front cover, under Miscellany.

NEWS

Coming Meetings

American Medical Association, St. Louis, Missouri, May 15 to 19, 1939. Olin West, M.D., Secretary, 535 North Dearborn Street, Chicago, Illinois.

California Medical Association, Hotel Del Monte, May 1 to 4, 1939. George H. Kress, M.D., Secretary, 450 Sutter Street, San Francisco.

Medical Broadcasts*

Los Angeles County Medical Association

The radio broadcast program for the Los Angeles County Medical Association for the month of December is as follows:

Thursday, December 1—KECA, 10:45 a. m., The Road of Health.
Saturday, December 3—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, December 8—KECA, 10:45 a. m., The Road of Health.
Saturday, December 10—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, December 15—KECA, 10:45 a. m., The Road of Health.
Saturday, December 17—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, December 22—KECA, 10:45 a. m., The Road of Health.
Saturday, December 24—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.
Thursday, December 29—KECA, 10:45 a. m., The Road of Health.
Saturday, December 31—KFI, 9:00 a. m., The Road of Health; KFAC, 11:30 a. m., Your Doctor and You.

Truisms: From the Pen of the Late Joseph P. Widney, Founder of the Los Angeles County Medical Association.—Boake Carter, feature writer for the Hearst newspapers, on November 17 printed excerpts from the works of the late Joseph P. Widney, whose death, at the age of 97, occurred during the current year. Biographical and other sketches of Doctor Widney have appeared in CALIFORNIA AND WESTERN MEDICINE.† The following comments by Boake Carter are of interest:

" 'Here is a platform, composed of a number of planks for the preservation of popular government. The truths that must be learned are these:

'That labor is a blessing, the greatest ever given to man, and not a curse.

'That the right to labor and to become a producer is the birthright of every human being, a right not to be questioned or denied.

'The idle man, whether behind prison walls or on a strike or subsisting on inherited wealth, is fed in his idleness by someone's toil. That there is no such thing as the bread of idleness; it is the bread of industry, only eaten by idleness, and that community is the poorer for every mouthful thus eaten.

'That artificially hampered or restricted production reacts inevitably and disastrously upon the producer whether he be employer or employee, the working of the natural law of supply and demand being the only safe and healthful guide.

'That there is no mysterious power in the state. It is only the people—aggregated; not an entity in itself.

'That the state is no wiser than the individual members who compose it.

'That law cannot create wealth; only regulate it.

'That capital is only a credit mark for labor done, and which has not been consumed; labor only unaccumulated capital and which if not consumed may become capital.

'That labor and capital mutually supplement each other, and that to each a higher grade of living is possible because of the other.

'That while an honest day's labor is entitled to the honest dollar, equally true is it that the honest dollar is entitled to the honest day's labor.

'That an injustice to one is a wrong to all.

'That when a community permits violence, it is sapping the foundations of its own safety. License paves the way for despotism; and the demagogue is only the forerunner of the dictator.

'That every dollar's worth of property destroyed by riot is so much of the world's stored-up labor blotted out, and the rioter himself, as a member of the community, is that much poorer.

'That the man who promotes class jealousies is an enemy to all, and to himself as well; and that the labor union demagogue is the same pestilent creature, and in the end just as harmful to the causes he espouses as is the political demagogue.

'That no man and no class is permanently lifted up by pulling another down. The ties of the world-life are too closely interwoven for this.

" 'The above truisms were written in 1907. They fit perfectly the picture of 1938. I found them when desiring to learn something about the term 'Aryan,' about which Hitler has tub-thumped so much. They are contained in 'Race Life of the Aryan People,' of the Old World and New World, two volumes by Joseph Widney. He was a medical officer in the United States Army. He wrote them twenty-five years before anyone ever heard of a man named Hitler! They are not only fascinating, but uncanny.' "—*Los Angeles Examiner,* November 17, 1938.

American Board of Obstetrics and Gynecology: Examinations.—The next written examination and review of case histories for Group B candidates will be held in various cities of the United States and Canada on Saturday, February 4, 1939, at 2 p. m. Application for admission to this examination must be filed on an official application form in the office of the secretary at least sixty days prior to this date (or before December 4, 1938).

The general oral, clinical and pathological examinations for all candidates (Groups A and B) will be conducted by the entire Board, meeting in St. Louis, Missouri, on May 15 and 16, 1939, immediately prior to the annual meeting of the American Medical Association. Application for admission to Group A examinations must be on file in the secretary's office by March 15, 1939.

For further information and application blanks, address Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh (6), Pennsylvania.

* County societies giving medical broadcasts are requested to send information as soon as arranged (stating station, day, date and hour, and subject) to CALIFORNIA AND WESTERN MEDICINE, 450 Sutter Street, San Francisco, for inclusion in this column.

† Issues of April, 1936, page 292; August, 1938, page 161.

Scientific Exhibit: American Medical Association.—Application blanks are now available for space in the Scientific Exhibit at the St. Louis session of the American Medical Association, May 15-19, 1939. Attention is called to the fact that the meeting is a month earlier than usual, and applications close on January 5, 1939. Blanks will be sent on request to the Director, Scientific Exhibit, American Medical Association, 535 North Dearborn Street, Chicago, Illinois.

Mechanical Heart Will Beat for San Francisco Fair Visitors.—The ceaseless motion of the heart—from the cradle to the grave, at the rate of seventy beats to the minute—will be dramatically demonstrated to millions of visitors to the 1939 Golden Gate International Exposition on San Francisco Bay. The display will be part of the exhibit of the Ciba Pharmaceutical exhibit in the Hall of Science.

Over two billion heart beats—the equivalent of seventy beats per minute over a 65-year period—will be indicated on a three dimensional model heart which stands five feet high in the center of the exhibit. Lights flashing over other models will trace the course of the blood flow, the movements of the valves. Supplementary drawings and animated models will explain:

How the heart pushes forward one gallon of blood per minute when a person is in a resting position; three gallons when standing, and thirty gallons when running.

How the arteries and veins contract and expand, how the pulse is created, and how valves function in stopping back-flow.

How the blood stream provides food to the cells, removes waste matter.

How the red blood cells supply oxygen to the body, and how the white cells provide protection against invading bacteria; how blood platelets act in the formation of clots, shown on a model enlarged 10,000 times.

How the heart itself is supplied by blood to enable it to carry on its pumping functions.

The danger of inflammation will be emphasized, showing how efficiency of the heart is reduced. Popular misconceptions of high blood pressure, too, will be outlined and explained along with heart disease, its prevention and treatments for relief.

Doctors' Bills.—Recognizing the fairly widespread tendency on the part of the public to regard doctor bills as obligations that can wait indefinitely or at least until after all other bills have been paid, California Bank, Los Angeles, during the week of October 31 to November 5, inaugurated "Pay Your Doctor Week," with three-column six-inch ads in local metropolitan daily newspapers and reprints of the ad in approximately 35,000 month-end checking account statements calling attention to the dedicated week and to the bank's personal loan plan for paying doctor and other bills.

To each of the five thousand doctors and dentists practicing in the communities served by the institution's fifty-four offices, California Bank sent an explanatory letter printed on the reverse side of a reprint of the ad along with a folder describing the bank's personal loan plan.

Quoting from the letter:

"'Pay Your Doctor Week' is designed to help you turn your accounts receivable into cash and to provide your patients with a convenient, low rate, installment method of paying their bills. . . . We shall appreciate having an expression of your opinion and any suggestions you care to offer concerning 'Pay Your Doctor Week.' . . . Your opinion, as part of a consensus of the medical and dental fraternity, will assist us in determining whether or not 'Pay Your Doctor Week' should be repeated. Please address any communication you care to make to California Bank (Room 1207), 625 South Spring Street, Los Angeles."

Los Angeles Clinical and Pathological Society.—The dinner meeting held on Wednesday evening, November 16, at 6:30 o'clock, in the California Club, was in honor of charter members and in commemoration of the thirty-fifth anniversary of the founding of the Society.

Dr. George Herrmann, Professor of Medicine, University of Texas, was the guest speaker, and discussed "The Clinical Nature of Heart Failure."

Southern California Medical Association.—The ninety-ninth semi-annual meeting was held on October 28 and 29, with headquarters in the Los Angeles County Medical Association, 1925 Wilshire Boulevard, Los Angeles. The program follows:

Friday Afternoon Session:

Notes on the Early and Late Treatment of Wounds by William S. Kiskadden of Los Angeles, with discussion by James B. Johnson and John D. Gillis, both of Los Angeles.

Symposium on heart disease, with case reports, as follows:

An Unusual Circulatory Accident by Lewis T. Bullock of Los Angeles, with discussion by Robert W. Langley of Los Angeles.

Subacute Bacterial Endocarditis Simulating Syphilis by George H. Houck of Los Angeles, with discussion by Willard J. Stone of Pasadena.

Myocardial Damage Following Administration of Emetin by A. M. Roberts of Los Angeles, with discussion by Franklin R. Nuzum of Santa Barbara.

Paroxysmal Tachycardia by William P. Corr of Riverside, with discussion by Arthur M. Hoffman of Los Angeles.

Epilepsy: The Diagnosis, Cerebral Localization and Treatment by William T. Grant of Los Angeles, with discussion by M. A. Glaser and Leo J. Adelstein, both of Los Angeles.

Friday Evening Session:

Modern Concepts of Mental Hygiene by Lloyd H. Ziegler, Associate Medical Director of Milwaukee Sanitarium, Wauwatosa, Wisconsin.

Saturday Morning Session:

Mucocele of the Appendix by James C. Doyle of Los Angeles, with discussion by Harlan Shoemaker and Shuler F. Fagan, both of Los Angeles.

Reactions Following Blood Transfusions by Milo K. Tedstrom of Santa Ana, with discussion by Roy W. Hammack of Los Angeles and Alvin G. Foord of Pasadena.

The Treatment of Milder Psychiatric Disorders at Home by Lloyd H. Ziegler of Wauwatosa, Wisconsin, with discussion by Glenn E. Myers of Compton and William Edler of Pasadena.

The Hemorrhagic Tendency in Patients with Jaundice by Edward W. Boland of Los Angeles, with discussion by C. J. Berne of Los Angeles and P. A. Gray of Santa Barbara.

Saturday Afternoon Session:

The Value of Splenectomy by Donald C. Collins of Los Angeles, with discussion by V. C. Hunt of Los Angeles and Leo J. Madsen of Santa Monica.

Symposium on Pulmonary Tuberculosis, with case reports, as follows:

Closed Intrapleural Pneumonolysis by John C. Jones of Los Angeles, with discussion by Edwin S. Bennett of Olive View.

Extrapleural Pneumothorax by Marvin S. Harris of Los Angeles, with discussion by Frank S. Dolley of Los Angeles.

Pneumoperitoneum by E. E. Noble of Los Angeles, with discussion by Edward W. Hayes of Monrovia.

Pneumothorax by R. H. Sundberg of San Diego, with discussion by Carl R. Howson of Los Angeles.

The Disturbed Physiology in Bronchial Asthma: Its Therapeutic Implications by Hyman Miller of Los Angeles, with discussion by Charles C. Coghlan, J. Dwight Davis, and Robert W. Lamson, all of Los Angeles.

Officers for 1938 are: William H. Barrow of San Diego, president; Alvin G. Foord of Pasadena, first vice-president; William P. Corr of Riverside, second vice-president; John B. Doyle of Los Angeles, secretary-treasurer.

Councilors are: Frank R. Nuzum, Santa Barbara; Robert W. Langley, Los Angeles; Merrill W. Hollingsworth, Santa Ana; William H. Barrow, ex officio; and John B. Doyle, ex officio.

Board of Governors includes: F. M. Pottenger of Los Angeles; Egerton L. Crispin of Los Angeles, Joseph M. King of Los Angeles, Joseph K. Swindt of Pomona, Charles T. Sturgeon of Los Angeles, Paul E. Simonds of Riverside, Raymond G. Taylor of Los Angeles, Fred B. Clarke of Long Beach, Carl R. Howson of Los Angeles, Bon O. Adams of Riverside, and H. Douglas Eaton of Los Angeles.

Subject: Legal Status of Physicians under the Workmen's Compensation Act of California.—An item and brief on this important subject appears in the advertising section of this issue, commencing on advertising page 26.

University of California Medical School.—The University of California Medical School will offer a course on "The Treatment of Fractures" from December 14 to 16. Through the courtesy of Dr. J. C. Geiger, Director of Public Health, this will be given at the San Francisco Hospital. The course, which will be short and comprehensive, has been designed to meet the needs of physicians engaged in private practice. Through clinical presentations, detailed outlines of treatment and demonstrations, every effort will be made to make the course applicable to the problems encountered in practice. Upon request, the dean's office, University of California Medical School, Medical Center, San Francisco, will be glad to supply more detailed information.

Second Federal Institution for Drug Addicts.—The United States Public Health Service Hospital for drug addicts at Fort Worth, Texas—second such institution in the country—was formally dedicated on October 28.

Passed Assistant Surgeon William F. Ossenfort was assigned to duty as medical officer in charge of the hospital in April of this year. Since that time, with the aid of a skeleton staff, he has been actively engaged in equipping and preparing the hospital for patients.

Built at a cost of approximately $4,000,000, the institution covers 1,400 acres. It includes an administration building, a clinical ward building, a maximum custody ward, personnel residences, and maintenance structures. A prolonged treatment building for the more advanced cases of addiction will be ready in 1939. About three hundred beds already have been set up for patients scheduled to occupy the new quarters beginning the week following dedication.

Comparable in function with the original hospital at Lexington, Kentucky, the new unit differs somewhat in design and arrangement. Structurally, it has less emphasis placed on the custodial features. Artificial barriers such as bars, high gates, and walls, and the enclosed court feature are less pronounced.

Composition of Neutron Ray. — The neutron ray, now claiming wide attention as a therapeutic agent, particularly in the treatment of malignant growths on animal tissues, is described in nontechnical language by Dr. Luis W. Alvarez, research fellow in physics in the Radiation Laboratory of the University of California. The comparative effects of neutron and x-ray radiation are now being studied by the University with the hope of developing the neutron ray as an important adjunct to the other types of radiation.

The ray is produced by the University's cyclotron or "atom-smashing" machine. The apparatus is usually adjusted to produce eight million volt hydrogen atoms, and these are, in turn, directed at some substance, for example, iron. Some of the iron atoms are transmitted into new elements, either cobalt or manganese, while other iron atoms are changed into a new form of iron which has many of the properties of radium. This new form of the metal is known as radio-active iron.

Similarly, if the atomic bullets are directed at any other substance, they will cause transmutations to occur, and, in many of the cases, radio-active products will be formed.

When the high-speed atom collides with the atom of the "target substance," the latter explodes and flies into two parts. One of these parts is the atom of the new element, for example, cobalt, manganese or radio-active iron, and the other is a light atom, such as hydrogen or helium. More often than either of these two, it is a new particle known as a neutron.

The neutron was discovered in 1932, and is an electrically neutral body of about the same weight as the hydrogen atom. The fact that it carries no electrical charge enables it to penetrate far into the interior of large bodies of matter where ordinary radiation, such as light, x-rays or radium cannot go. It is the ray caused by the neutron discharge from the cyclotron which appears to have increased the lethal power of radiation on the tumor masses in animal experimentation.

Mississippi Valley Medical Society 1939 Essay Award.—The Mississippi Valley Medical Society offers a cash prize of $100, a gold medal and a certificate of award for the best unpublished essay on a subject of interest and practical value to the general practitioner of medicine. Entrants must be members of the American Medical Association. All contributions *must not* exceed 5,000 words, be typewritten in English in manuscript form, submitted in five copies, and must be received *not* later than May 1, 1939, Further details may be secured from Harold Swanberg, M.D., Secretary, Mississippi Valley Medical Society, 209-224 W. C. U. Building, Quincy, Illinois.

Another Near Miracle Credited to "Iron Lung."—A man named Drinker and a few alley cats have been given credit by the University of California Hospital for granting a new lease of life under almost miraculous conditions to a seventeen-year-old Chico boy. Some weeks ago, while in the last stages of meningitis, complicated by a spinal abscess, the boy was rushed by automobile from his home to the University of California Hospital in San Francisco. Upon arrival he had fallen into a deep stupor, a complete paralysis from the arms down had set in and death seemed but minutes away.

Frankly informing his parents that the case seemed hopeless, the physicians had the boy placed in an improved mechanical respirator and, after two weeks, he had so improved that he could be taken from the respirator. The abscess was drained, relieving him in part of the paralytic condition. While he is not yet out of danger the physicians in charge give him a good chance for recovery.

The boy is David Burnell Van Dyke of 406 Cherry Street, Chico. He became ill over a month ago, and despite heroic local treatment, he sank rapidly. The trip to San Francisco in the family car was decided upon as a last desperate expedient, the parents being in straitened circumstances and unable to afford an ambulance for the long trip. Doctors and technicians at the University Hospital unanimously agreed that the case was one of the most hopeless ever brought to their attention, the ravages of the two quick-acting and often fatal diseases being aggravated by the ordeal of the long journey from home.

The attending physicians pass most of the praise on to Doctor Drinker, dean of the school of public health of Harvard University, who devised the respirator, or iron lung as it is called, tried it out in its crude form on the cats, which had become afflicted with a severe respiratory disease, and found that it worked in a manner little short of miraculous. Experiments on human cases proved equally effective.—*University of California Clip Sheet.*

Fatal Dog Disease Reported Checked by University of California Foundation.—An endemic of Weil's disease or "yellows," a fatal disease of dogs, which has claimed the lives of hundreds of canines throughout the state and endangered many human beings as well in the past two years, has been definitely checked, it is announced by the Hooper Foundation for Medical Research of the University of California. So severe had the depredations of the disease on the dogs of San Francisco become that a veterinarian of

the Society for the Prevention of Cruelty to Animals appealed to the Foundation for aid. The Society reported 80 to 90 per cent mortality among the dogs attacked. To this plea were added those of a number of veterinarians in Stockton and elsewhere.

Recently two human cases of the disease were contracted in California, presumably through the handling of dogs. Both were veterinarians, one in San Francisco and the other in Stockton. Both passed through a long and serious course of illness before recovery. Numerous other cases of human attack were reported, one fatal, but the infection could not be directly traced to dogs.

The nature of the disease was established in the laboratories of the Hooper Foundation, where it was determined that a spirochete, technically called the Leptospira, was the causative factor. Simultaneous studies had established that the disease or one of its close relatives had been prevalent in Holland at one time, and had been checked by a certain serum developed there. Quantities of this serum were obtained and this, together with serum obtained from convalescent dogs, was used for the California outbreaks. The latest reports state that the treatment has been generally successful.

The serum is obtainable at the Hooper Foundation at the present time, where it may be obtained by all qualified veterinarians. It is hoped to have it placed on the market within the next few months.

Warning has been sent the veterinarians of the state to watch not only for the infection in dogs but for human infection as well, and to report all cases at once to the Hooper Foundation.

Symposium on Mental Health.—The Section on Medical Sciences of the American Association for the Advancement of Science announces a Symposium on Mental Health to be held in conjunction with the annual meeting of the association at Richmond, Virginia, from December 28 to 30, 1938, and cordially invites the attendance and participation of all interested persons.

A Coöperative Project

Collaborating in the plans for the event are the American Psychiatric Association (an affiliated body of the American Association for the Advancement of Science, the United States Public Health Service, the Mental Hospital Survey Committee (composed of representatives of eight national medical bodies), the National Committee for Mental Hygiene and a special committee of eminent psychiatrists who are developing the program for the symposium under the chairmanship of Dr. Walter L. Treadway, formerly assistant surgeon general of the Public Health Service.

Purpose of the Symposium

The symposium will provide an unusual opportunity to bring the great problem of mental health before the forum of the American Association for the Advancement of Science and, through it, to the scientific and lay public of America. It will be the tenth in the series of symposia held by the Section on Medical Sciences since 1934 and the first to deal with this important subject. All who have a serious interest in the subject will be welcome—scientists and laymen, professional workers and others—for the mental hygiene movement is a *public movement,* including among its adherents representatives from all walks of life and courting the good-will and support of all in its far-reaching aims and activities.

Its object will be, essentially, to present a synthesis of existing knowledge of the mental health problem, to evaluate past experience, crystallize aims and objectives and to marshall the scientific forces of the nation for a concerted, coördinated and more effective attack on mental disorders and disease. By drawing on the various scientific disciplines, within and without the field of mental hygiene, that are in a position to contribute new knowledge, we hope to light up the problem as never before and to arrive at a new and better orientation in dealing with it on its practical as well as theoretic side.*

Press Clippings.—Some news items from the daily press, on matters related to medical practice, follow:

Absentee Vote Boosts Eaton Lead on Scott†

Mayor Thomas M. Eaton, Republican of Long Beach, in the lead over Democratic Congressman Byron N. Scott in the Eighteenth District race, today forged still further ahead when in the counting of absentee ballots he received 105 additional votes to 94 tallied for Scott. The count is expected to be completed late today.

In the standing before the race entered the final swing of the counting of the absentee ballots today, Eaton led the incumbent by 106 votes, having polled in the election a total of 51,732 against Scott's 51,626. In the count today six votes were recorded for Solomon Carr, Progressive from Bellflower.

The ballots are being rapidly canvassed and will be completed late today if the present speed is maintained, according to Deputy County Counsels Beach Vasey and Curtis Smith, who are on hand to pass on any legal questions that may arise during the official tally.

Congressman Scott, with his observers, is attending the count while Eaton is represented by Attorney John F. McCarthy.

Scott supporters said there was strong possibility that the absentee ballots might win for Scott because most of them are from Navy or Marine Corps men, and Scott is an active member of the House naval affairs committee. Eaton's supporters, however, were confident he would retain his lead.

Democratic observers, led by Scott, were making no challenges. But the Republicans challenged 110 ballots on grounds of improper addressing. Most of these were from CCC and SRA camps, and from Washington, D. C.

Vasey ruled that an absentee ballot cannot be counted after it is challenged unless the party who marked it is present to defend it.

The ballot, however, may later be counted by the courts in the event the contest is carried there for determination.

A total of 765 absentee ballots are being tabulated out of a total of 964 returned. Approximately 199 have been challenged and rejected for failure of voters to comply with absentee ballot law requirements.—Los Angeles *Herald,* November 16.

* * *

Long Beach City Election Interests Congressman Scott†

Representative Byron N. Scott in a radio speech last night made the double announcement that the congressional fight in this district is not ended and that the campaign for Long Beach's municipal election next year is starting. He charged that the challenging of absentee voters' ballots in the November 8 election, in which he, the Democratic incumbent and candidate for reëlection, was defeated, on the face of semi-official returns, by Mayor Thomas M. Eaton, Republican, had disfranchised Democratic voters entitled to vote. . . .

Eaton Holds Lead

With the count of absentee ballots, Mayor Eaton had a lead of 288 votes over Representative Scott in the November 8 election. His plurality, with absentee ballots excluded from consideration, was 106. Of the absentee ballots, eighty-two were challenged, sixty-nine by Eaton observers and thirteen by Scott supporters; 122 ballots were rejected by the tabulating officials for improper execution.

Had Scott received all of the challenged votes and all of those rejected by election officials, Eaton still would have had a plurality on the basis of the semi-official count, it has been pointed out.

The official canvass of November 8 votes now is being made by the Board of Supervisors. Probably the incumbent's move for a recount of the Eighteenth Congressional District vote will be made after completion of the official canvass.

* Correspondence in relation to the symposium should be addressed to the Administrative Office, Symposium on Mental Health, A. A. A. S., Room 822, 50 West Fiftieth Street, New York City, Paul O. Komora, Administrative Secretary.

† This item is of interest because it was Congressman Scott who, in the last session of Congress, introduced the bill to investigate the American Medical Association (CALIFORNIA AND WESTERN MEDICINE, May, 1938, page 306).

Later reports of the absentee vote showed Mayor Eaton to have been elected by several hundred votes.

It will be impossible for a court contest of the Eaton-Scott votes to be launched until after the official canvass will have been certified by Secretary of State Frank C. Jordan.

That was the opinion expressed today by Registrar of Voters W. M. Kerr.

Kerr said that the official canvass in behalf of Los Angeles County will not be certified until November 29.

Long Delay Seen

At least a week will be required before returns can be forwarded to Sacramento and certified by the Secretary of State.

Then the result is open to challenge in the courts.

Under the sequence of events, it would appear that the final outcome of the race more than likely will be delayed until the Christmas holidays.

Registrar Kerr today stated definitely that he will not include 142 rejected absentee votes in his canvass total nor will he include eighty-nine challenged votes.

"The counting of these votes will be a matter for the courts to decide, if there is a contest," Kerr said this morning.

The election contest must be brought within thirty days from the time the totals are certified in Sacramento by the Secretary of State.—Long Beach *Press-Telegram*.

* * *

Los Angeles County Supervisors Seek $100,000 From United States for Health Survey

Steps to obtain $100,000 for a health survey throughout California were taken by the Board of Supervisors when a motion was passed calling on Dr. Walter M. Dickie, state health officer, to appeal to federal authorities for funds under the proposed congressional bill which would set up $850,000,000 for health work throughout the nation.

Supervisor John Anson Ford stated that California and Los Angeles County should be prepared to obtain all possible benefits under the proposed bill, and he expressed the belief that the state would get an excellent start by making a competent survey of all persons afflicted with various diseases in California.

The board's motion suggested that Doctor Dickie make his appeal to the surgeon-general of the United States—Los Angeles *Herald*, November 16.

* * *

Doctor Gibbons Will Head Fair Hospital

Dr. Morton R. Gibbons, Sr., noted surgeon in his own right and fifth in a family of medical men, will be in charge of the hospital to be operated at Treasure Island next year. He inspected the new facilities yesterday.

The hospital, already completed, is housed in the north wing of the Administration Building. The Exposition Hospital, modern in every respect, will be maintained, after the fair closes its doors, as a permanent adjunct of the airport.

Doctor Gibbons is a past president of the California Medical Association and past medical director of the State Industrial Accident Commission.

The hospital probably will be manned by three or four doctors and an equal number of nurses. Exposition officials are not expecting any trouble but "after all it's a city for millions next year and we have to be prepared for anything," one officer said.—San Francisco *Chronicle*, November 4.

* * *

Medical Care Offered Needy Farm Families

Farm Security Administration Operates Programs in Seventeen States

Special to The News

Washington, October 18.—Special medical care programs for low-income farh families arc now in operation or in process of preparation in sixteen states besides California, Farm Security Administration said today.

The announcement indicates the extent to which rehabilitation of farm families in their own states is being attempted to prevent further westward migration.

Statewide medical carc programs go into effect in North and South Dakota on November 1.

Agreements are Reached

Agreements have been reached with state medical associations in North Carolina, Wisconsin, Utah, New Mexico, and Colorado, and programs arc being discussed with local medical authorities.

Farm Security Administration will loan each needy farm family signing up for the North and South Dakota programs a total of $16, or $2 a month for the rest of this fiscal year. The money will be turned over to a special corporation in each state.

Supervisor To Be Named

The corporation will allocate the funds between physicians, dentists, hospitals, pharmacists, and nurses. Families signing up will then be eligible for medical, dental, or hospital care from any members of the professional organization.

In each state an officer nominated by the medical association but paid by the state health department, will serve as general medical supervisor and arbitrator, passing on the bills submitted to prevent excessive charges. — San Francisco *News*, October 21, 1938.

* * *

Health Department Seeks More Power

Doctor Geiger Says Authority Needed to Meet Emergencies

An ordinance to provide the San Francisco Health Department with greater authority in its battle with diseases and epidemics was urged by Director J. C. Geiger today in a letter to City Attorney John J. O'Toole. Doctor Geiger said his department now must rely on a state statute for authority in emergencies.—San Francisco *News*, November 7, 1938.

* * *

San Mateo Health Survey

San Mateo County civic clubs, the County Medical Association and the new Ministerial Association appeared today before the Board of Supervisors to demand that a request for a Federal survey of health conditions be made to the United States Public Health Service.

The demand was a climax to a long fight for the survey, which apparently had ended in September when the supervisors promised to request the survey. They wrote the letter but never mailed it.

Failure to get the letter off resulted in new protests, leading to today's meeting. The Medical Association declared Surgeon General Thomas Parran had wired them assurance of his willingness to order a survey once request had been made formal.—San Francisco *News*, November 1, 1938.

* * *

California Voters To Ballot in 12,472 Precincts

Sacramento, October 22—(UP).—California voters will cast their ballots November 8 at 12,472 precincts, an increase of forty-three over the number of voting places at the August 30 primary elections, Secretary of State Frank C. Jordan announced.

The number of precincts in each county follow:

Alameda, 1,273; Alpine, 5; Amador, 25; Butte, 124; Calaveras, 33; Colusa, 28; Contra Costa, 176; Del Norte, 20; Eldorado, 36; Fresno, 252; Glenn, 35; Humboldt, 117; Imperial, 83; Inyo, 30; Kern, 228; Kings, 54; Lake, 32; Lassen, 50; Los Angeles, 4,482; Madera, 42; Marin, 109; Mariposa, 22; Mendocino, 88; Merced, 68; Modoc, 23; Mono, 8; Monterey, 109; Napa, 51; Nevada, 42; Orange, 246; Placer, 64; Plumas, 30; Riverside, 166; Sacramento, 338; San Benito, 29; San Bernardino, 358; San Diego, 483; San Francisco, 1,055; San Joaquin, 233; San Luis Obispo, 79; San Mateo, 240; Santa Barbara, 130; Santa Clara, 294; Santa Cruz, 109; Shasta, 55; Sierra, 16; Siskiyou, 73; Solano, 79; Sonoma, 167; Stanislaus, 121; Sutter, 31; Tehama, 54; Trinity, 26; Tulare, 139; Tuolumne, 34; Ventura, 100; Yolo, 44; Yuba, 34. Total, 12,472.

* * *

Meet to Discuss Humane Pound Act

A public meeting to discuss the State Humane Pound Act, Proposition No. 2 on the November ballot will be held by the California Animal Defense and Antivivisection League next Tuesday, at 8 p. m. in Burdette Hall, Philharmonic Auditorium, according to an announcement made today by the California Citizens' Committee, sponsoring this act.

Guest of honor will be Leo Carillo, motion picture actor who has endorsed the measure.

Rollin McNitt, Los Angeles attorney, will speak on the legal aspects of this initiative measure. Dr. Wolf Adler, prominent physician, will refute the argument, that this measure is an antivivisection bill, it was announced. Other speakers will include Dr. P. M. Lovell and W. I. Clendenon, who will be chairman.

Carillo in endorsing the State Humane Pound Act said, "Look into a dog's eyes and you will find no greater love, faithfulness and sincerity. Give our dumb friends a chance by voting yes on Proposition No. 2."—Los Angeles *Evening Herald-Express*, October 22.

* * *

Prostituting the Initiative!

In several states by constitutional amendment the people have the right to vote directly on legislation which they themselves initiate or on measures already passed by the legislature. By this means the laws of the state may be

made more clearly to reflect the will of a majority of the voters. The initiative procedure, however beneficial its attributes may be theoretically, has unfortunately been utilized by small groups to foster schemes for selfish ends. On November 8 the people of three states will vote on measures initiated by such groups.

In California a measure initiated by a small group of emotionalists seeks to cripple scientific research in the state by making it difficult if not impossible to procure animals for experimental purposes. In Oklahoma an initiative measure proposes, among other things, to permit hospitals legally to enter into contracts for medical services, if the hospital is organized "on a mutual and coöperative nonprofit plan in connection with some recognized farm or labor union or church or charitable organization." In Colorado, initiative amendment No. 2 proposes by constitutional amendment to guarantee to every person in the state the exclusive right to choose his own state license system of healing and physician for state-required examinations or for therapeutic services in connection with state compensation or other insurance benefits and to open the doors of all tax-supported or partially tax-supported corrective, therapeutic or eleemosynary or other public institutions in the state to the cultists. The Colorado amendment, if adopted, will repeal the basic science act enacted by the legislature in 1937, will deprive the legislature of any future right to exercise its police power in protecting the people from the ministrations of incompetent healers and will devolve on any profession recognized by the state the "exclusive right to examine, license and regulate the practice of its own members through its own legally constituted power or authority."

It seems inconceivable that these measures will receive the approval of the voters in these three states. The tragedy lies in the fact that a procedure conceived in the public interest may be invoked and utilized for purposes inimical to that public interest.—*Journal of the American Medical Association,* November 5, 1938.

* * *

His Good Deeds Stand Out

His mortal eyes forever closed, Pasadena today pauses to acknowledge its debt to Dr. Walter P. Bliss. It is a greater debt than it is possible for the general public for the moment justly to appraise. That can be done only by those in individual homes and in hospitals who have been the beneficiaries of his skill and of his kind and encouraging words.

Whatever his weaknesses, a mantle of charity now covers them. Looming out above them and shining clear are good deeds that cannot be, will not be, forgotten by the community.

In the course of his years of practice many and many were the sad souls who turned to Dr. Bliss in their hours of pain and anguish. Their pain and anguish he relieved. His own pain and anguish was more than he could bear. Now he rests, his earthly labors ended and his debts all paid.

Mingled with regrets over the tragic passing of Doctor Bliss are feelings of sympathy for the ones who, until sorrow came into it, made home happy for him, and which he in turn made happy for them.

Doctor Bliss will be remembered gratefully for his noteworthy services to mankind long after his human frailties, no matter what they were, have passed from mind. Editorial Views of the Pasadena *Star-News*, by Charles H. Prisk: Pasadena *Star-News*, November 4.

* * *

Elixir Maker Pleads Guilty

Kansas City, October 19—(AP).—Dr. Samuel E. Massengill, pharmaceutical manufacturer, pleaded guilty to a misdemeanor charge in connection with the transportation of an elixir of sulfanilamide before Federal Judge Merrill E. Otis today and was fined $9,500.

The American Medical Association attributed seventy-three deaths last year to use of the compound.—Los Angeles *Times*, October 20.

* * *

Tulare Loses Federal Office to Visalia

The county office of the recently established Agricultural Workers' Health and Medical Association has been moved from Tulare to Visalia, where it is now located at 1110 East Main Street. It was formerly in the Young building here.

The Agricultural Workers' Health and Medical Association is a government agency to provide medical care for needy transients. It dispenses federal funds, certifying to private physicians and private hospitals sick or injured transients who have not been in California long enough to qualify for county aid. Unfortunately, the bulk of such cases in Tulare County are in the southwestern part of the county, and will now have a trek to Visalia and back to make when seeking aid.—Tulare *Advance Register,* November 4, 1938.

Geiger Warns of Rabies Danger

Dr. J. C. Geiger, San Francisco health officer, today urged police and public coöperation to prevent spread of the San Mateo County rabies epidemic which has claimed eighteen victims of mad dog bites in the past ten days.

"Because most dogs in San Francisco are kept in apartments, danger to humans is greater than in any other area except New York City," Geiger declared.

Meantime, parents of Robert Stentiford, age fourteen, of Menlo Park, who have steadfastly refused to allow the boy's submission to treatment after he was believed to have been bitten by a rabid dog, declined to comment today. All other known victims have been treated.

With San Mateo County and nearby San Jose under rigid surveillance for signs of rabies, Doctor Geiger issued these precautions to San Franciscans:

Permit no contact between your dog and strays; report all stray dogs to the pound; have your veterinary advise concerning prophylaxis; have all dog bites treated within an hour; keep your dog on a leash and if your dog appears ill seek a veterinary's advice.—San Francisco *Call-Bulletin,* October 24.

* * *

Health Insurance Topic

"Health Insurance vs. 'The Free Practice' of Medicine" will be discussed by Dr. Barbara Armstrong, nationally known authority on social insurance and professor of law at the University of California, next Sunday evening when the Haskalah Club holds its November meeting at the Western Women's Building. An open forum will follow.—San Francisco *Call-Bulletin,* November 9, 1938.

* * *

State Medical Men See New Hospital

Dr. William W. Roblee, President, and Dr. George Kress, Secretary, of the California State Medical Society, visited the Butte County infirmary this week. They inspected the buildings and conferred with Dr. L. A. Jacoby, county physician, and Archie Allen, superintendent, Dr. Jacoby said. —Oroville *Mercury Register,* November 4, 1938.

* * *

Camp to Start Own "Hospital"

Salinas, November 8.—As suddenly as it started, the "relief" war between county, state, and federal governments over Camp Ord ended today.

At a meeting of the board of supervisors, representatives of the SRA and WPA—Dr. John C. Sharp, medical and health director for the county, and Welfare Director W. H. Leach—reached a solution to the problem which last week saw the board refuse further aid to the 585 Camp Ord indigents on the ground they were not county residents.

County officers were informed that camp directors will undertake a hospital program of their own, thus relieving the county of the burden of extending aid to injured and sick camp members.

The county, on the other hand, promised to continue aid to forty-eight SRA clients, all county residents, employed at the camp but not a regular part of the WPA project.

In addition, the county hospital will take care of "emergency cases which the Camp Ord hospital staff is unable to handle, either through lack of facilities or otherwise," Chairman Andrew B. Jacobsen said.—San Jose *Mercury-Herald,* November 9, 1938.

LETTERS

Subject: Status of osteopathic licenses.

(COPY)

San Francisco, October 31, 1938.

Ralph H. Cowing, Esq.
Deputy Attorney-General
State Library and Courts Building
Sacramento, California

Re: *Jordt* vs. *California State Board of Education;* No. 58214, Department No. 3.

Dear Mr. Cowing:

I have now had an opportunity fully to examine your letter of October 27 and enclosed copies of briefs presented to the Superior Court by Mr. Brannely, attorney for Jordt, and yourself, as attorney for the State Board of Education.

With respect to the point raised by Mr. Brannely concerning osteopathic physicians and surgeons' licensed by the Board of Medical Examiners between 1917 and 1923, it is my recollection that there are not more than one hundred such physicians in active practice at the present time. (I note, however, that Mr. Brannely states there are three hundred.) These men received physicians and surgeons' certificates from the Board of Medical Examiners between 1917 and 1923 under Section 12½ of the Medical Practice Act then in effect. Under said Section 12½ an osteopath could receive from the Board of Medical Examiners a physicians and surgeons' certificate if (1) he had complied with the *educational requirements* for a physicians and surgeons' certificate and, in addition, successfully passed the examination given by the Board for physicians and surgeons' certificates, or (2) he had practiced osteopathy for at least four years and, in addition, passed the examination for a physicians and surgeons' certificate (the exact requirements appear in Cal. Stats. 1917, page 106, near the bottom of the page). Thus it can readily be seen that osteopaths could not secure a physicians and surgeons' certificate between 1917 and 1923 without satisfying the Board of Medical Examiners that they possessed sufficient educational background to be entitled to practice medicine and surgery.

On the other hand, since 1923 physicians and surgeons' certificates are issued to osteopaths by the Board of Osteopathic Examiners, which was created by the Osteopathic Initiative. Although the Board of Osteopathic Examiners administers the provisions of the Medical Practice Act, it has the sole determination as to whether or not physicians and surgeons' certificates are to be issued to oseopathic applicants. It would seem clear that the Board of Osteopathic Examiners would naturally be more inclined to issue physicians and surgeons' certificates "to graduates of osteopathic schools" if such graduates had sufficient osteopathic training than they would to graduates of medical schools. On the other hand, the Board of Medical Examiners between 1917 and 1923 most probably did not issue physicians and surgeons' certificates to osteopathic applicants unless such applicants were at least equal to average medical school graduates. It seems to me that a very clear distinction can be drawn between the two types of osteopathic physicians and surgeons.

I believe that the difference between educational requirements prior to 1923 and since 1923 and the difference between the Administrative Board conducting examinations can serve as an answer to Mr. Brannely's contention that Section 5.481 of the School Code discriminates between persons within an identical class.

I note that Mr. Brannely disposes of *Hayman* vs. *Galveston*, 273 U. S. 414, and *Newton* vs. *Commissioners*, 282 Pac. 1068, with the statement that "in those states a physician has no statutory or constitutional right to practice his profession in a hospital." Is it not likewise true that in California an osteopathic physician and surgeon has no statutory or constitutional right to practice his profession in a school? With respect to constitutional rights, it is my recollection that in Texas a state constitutional provision granted to osteopaths full power to practice medicine and surgery so that in Texas an osteopathic physician and surgeon, such as Hayman, had a license as broad as a California osteopath holding a physicians and surgeons' certificate issued by the Board of Osteopathic Examiners.

If I can be of any service to you in connection with other points or in further discussion of the above-mentioned points, please drop me a line.

111 Sutter Street.

Very truly yours,
HARTLEY F. PEART.

Subject: Consultations with cultist practitioners.

AMERICAN MEDICAL ASSOCIATION
Chicago, October 14, 1938.

Dr. George H. Kress
Secretary, California Medical Association
San Francisco, California
Dear Doctor Kress:

I am enclosing a copy of a letter received at this office from Mr. ———, a Los Angeles attorney, and a copy of my reply to it.

535 North Dearborn Street.

Very truly yours,
OLIN WEST.

* * *

(COPY)

Los Angeles, October 12, 1938.

American Medical Association
535 North Dearborn
Chicago, Illinois
Gentlemen:

Would you please advise me whether there is anything in the ethics of the medical profession which would prevent a licensed M. D. from employing or being employed by a licensed Doctor of Osteopathy or Doctor of Chiropracty?

Would you also please advise me if there is any canon of professional ethics of the medical profession which would prohibit a partnership being formed between an M. D. and a Doctor of Osteopathy or between an M. D. and a Doctor of Chiropracty?

Thanking you for your courtesy in this matter, I remain

Very truly yours,
(Signed): ————————

* * *

AMERICAN MEDICAL ASSOCIATION
(COPY)

Chicago, October 14, 1938.

Mr. ————
Attorney and Counselor at Law
Los Angeles, California
My dear Sir:

I have before me your letter of October 12, addressed to the American Medical Association.

It is my opinion that it would be highly unethical for a physician to employ an osteopath or a chiropractor in connection with the provision of medical service or to accept employment at the hands of osteopaths or chiropractors.

Your letter is being referred to the Secretary of the California Medical Association.

535 North Dearborn Street.

Very truly yours,
(Signed): OLIN WEST.

———

Subject: Negotiation of settlements with injured persons.

Re: Article in "Medical Record," regarding New York Statute forbidding adjusters to enter hospital within fifteen days after patient sustained injuries.

October 14, 1938.

To the Editor:—In regard to the above article, which was enclosed with your letter of September 29 asking me to obtain a copy of the penal law involved, I have examined the New York Statutes and find that Sections 270b, 270c, and 270d of Cahill's Consolidated Laws of New York make it a misdemeanor for any person to enter a hospital for the purpose of negotiating a settlement or obtaining a general release or statement, written or oral, from any person confined in said hospital as a patient as the consequence of any personal injuries sustained, within fifteen days after the patient received such injuries.

The evident purpose of the New York Statute is to prevent persons from taking advantage of hospital patients

who have suffered severe injury in an accident and are unable to understand what is proposed to them or requested of them.

Office of Hartley F. Peart.

Very truly yours,
HOWARD HASSARD.

Subject: Legal right of a corporation to practice medicine.*

(COPY)

October 5, 1938.

Dr. George H. Kress
Secretary, California Medical Association
San Francisco, California

Re *People* vs. *Pacific Health Corporation.*

The following is a clipping from this morning's San Francisco *Examiner:*

Stay of Judgment for Health Firm.

The State Supreme Court, which recently held the activities of the Pacific Health Corporation were in violation of the Medical Practice Act, yesterday granted a stay of judgment to the health insurance firm pending an appeal of the case to the United States Supreme Court.

The Pacific Health Corporation is evidently going to try to take the case to the United States Supreme Court, and at all events to secure additional time which will be allowed to make the attempt.

Very truly yours,
(Signed): HARTLEY F. PEART.

Subject: Chiropractic Practice Act of California.‡

BOARD OF MEDICAL EXAMINERS
STATE OF CALIFORNIA

To the Editor:—Enclosed please find mimeographed copy of decision rendered by San Francisco Superior Judge Van Nostrand on October 6, 1938, which we trust will result in definitely defining the limitations of the practice of chiropractic in this state.

A copy has been forwarded to each District Attorney in the State of California.

Very truly yours,
C. B. PINKHAM, M. D.
Secretary-Treasurer.

MEDICAL JURISPRUDENCE †

By HARTLEY F. PEART, ESQ.
San Francisco

San Francisco Municipal Employees Health Service System: A Review of a Recent California Supreme Court Decision Upholding the Constitutionality of the System

Late in 1936, a proposal to establish a system of health service for San Francisco City Employees was submitted to a referendum vote of municipal employees who declared themselves in favor of a periodic payment health service plan by a large vote. Thereafter, a charter amendment was submitted by the Board of Supervisors to the electorate and upon approval by vote of the people was submitted to the Legislature. On April 14, 1937, the Legislature approved the proposed charter amendment. This charter amendment added Section 172.1 to the charter of the City and County of San Francisco. The main features of Section 172.1 are as follows:

1. A "health service system" for municipal employees is established to be administered by a health service board.

2. All municipal employees, except those exempted because of religious convictions, are included in the system. In addition, the health service board has power to make provisions for inclusion in the system of dependents of municipal employees, retired municipal employees and temporary municipal employees.

3. The health service board by a two-thirds vote of its members has power to adopt a plan for rendering medical care to the members of the system, or for indemnification of the cost of medical care or for obtaining and carrying insurance against such costs.

4. The board is further empowered to make rules and regulations for the transaction of its business, for the granting of exemptions to municipal employees who "are otherwise receiving adequate medical care" and for the admission of members to the system.

5. The charter amendment provides that upon adoption by the health service board of a plan it shall determine the monthly sum to be deducted from wages of members of the system and then certify such sum to the City and County Controller. Thereupon, the Controller is required to deduct said sum from the compensation of members and deposit all deductions with the Treasurer of the City and County to the credit and for the use of the health service system.

6. The power of the health service board to adopt a periodic payment plan for medical care or for indemnification or to obtain insurance against medical costs is specifically restricted in the following particulars: The board cannot restrict the right of members of the system to complete freedom of choice of physician or hospital, provided, only, that the board may require all physicians or hospitals rendering service to abide by its rules and regulations. The board cannot enter into any exclusive contracts for the rendering of medical services. The board must provide that services are to be furnished at uniform rates of compensation and such rates and any contract respecting the rendering of services is subject to review by and requires the approval of the Retirement Board of the City and County of San Francisco.

The foregoing are not all of the provisions of Section 172.1 of the charter, but they do constitute the most important matters governed.

As above stated, the Legislature approved Section 172.1 on April 14, 1937, and immediately thereafter the section went into full force and effect. Subsequently, the municipal employees elected a health service board which organized and commenced to function. After some months of seeming inactivity and after first endeavoring unsuccessfully to obtain approval by the Retirement Board of an exclusive contract (expressly forbidden by the charter amendment), the health service board formulated and submitted to the Retirement Board a plan known as "Plan No. 1." Prior to public presentation of Plan No. 1, the San Francisco County Medical Society had prepared and submitted to the health service board a proposed plan, most of the principles of which were contained in Plan No. 1, as adopted. This plan called for the rendition of medical services to members of the health service system by any physician in San Francisco who agrees to abide by the rules and regulations of the board and who agrees to accept as full compensation for his services his pro rata share of that portion of the funds collected from municipal employees available for payment of medical compensation. Plan No. 1 was submitted to the Retirement Board and approved by it.

After approval by the Retirement Board of Plan No. 1, the health service board then determined upon the sum of $2.50 a month as the monthly deduction from compensation of members of the health service system. Pursuant to the charter amendment, the health service board notified the

* For full opinion of the Supreme Court of the State of California, see CALIFORNIA AND WESTERN MEDICINE, October, 1938, on page 306.

‡ Full opinion of Judge John J. Van Nostrand appears in this issue, on page 457.

† Editor's Note.—This department of CALIFORNIA AND WESTERN MEDICINE, presenting copy submitted by Hartley F. Peart, Esq., will contain excerpts from and syllabi of recent decisions and analyses of legal points and procedures of interest to the profession.

Controller to deduct $2.50 per month from the compensation of each municipal employee and to deposit with the City Treasurer to the credit and use of the health service system such sums so deducted. The Controller made the first monthly deduction and then refused to deposit the amount deducted with the City Treasurer until directed so to do by a court of competent jurisdiction.

Thereupon, the members of the health service board petitioned the Supreme Court of the State of California for a writ of mandamus directing the City Controller to deposit said monthly deductions with the City Treasurer as required by Section 172.1 of the charter. That petition is entitled *Butterworth* vs. *Boyd,* and was finally decided by the California Supreme Court in September, 1938. The opinion of the Court is printed in full in CALIFORNIA AND WESTERN MEDICINE, October, 1938, pp. 302–306.

The California Supreme Court held that Section 172.1 of the charter was a valid charter amendment not repugnant to the Constitution of the United States or the Constitution of the State of California and therefore, ordered the Controller to comply with the charter and deposit said monthly deductions with the City Treasurer.

Since the opinion has been published in full, we will not review in detail the rules of law announced by the Court. It should, however, be mentioned that the Supreme Court held the health service system to be a "municipal affair" and, therefore, a proper subject of municipal legislation.

It may well be asked what effect the decision may be expected to have with respect to the legal status of various group medicine and health insurance plans, compulsory or voluntary. The only answer that can be made is that the decision in *Butterworth* vs. *Boyd* upholds the validity of a compulsory health insurance plan for municipal employees, at the sole expense of such employees and contained in a city charter. It goes no further. A compulsory scheme involving the use of tax funds would present an entirely different problem. A compulsory plan, blanketing in *all* residents of a community falling in the low income brackets, would likewise present a different problem. The legal status (whatever it may be) of voluntary "closed-staff" group medical plans is in no manner affected by the decision.

SPECIAL ARTICLES

AMERICAN MEDICAL ASSOCIATION CASE MORE THAN CRIMINAL SUIT*

Broad Problem Cited Social Issue Involved May Reach High Court Hearings Resumed

The Department of Justice states it will resume the painstaking fitting together of the evidence on which it expects an extraordinary district grand jury to indict the American Medical Association and the District Medical Society for conspiring to obstruct the Sherman antitrust act by forming unlawful combinations in restraint of trade.

The proceedings, however, are regarded as more than a mere criminal prosecution, whatever its importance. Being prepared in proper legal form for ultimate consideration by the Supreme Court are issues of broad social significance. The misdemeanors alleged to have been committed in the row between American Medical Association and the Group Health Association, which brought the charges, are the peg on which these issues are hung.

CAN DOCTORS GIVE SOLUTION?

Were the juridical-sociologist experts who are directing the grand jury hearings from the council rooms of the New Deal to discard their policy of silence and explain their proceedings they might phrase these issues like this:

Has the problem of preserving or restoring the health of the individual American become so involved with the new and complex structure of the community that the healing art no longer can supply the solution by functioning on the traditional lines to which it is accustomed—and to which its most solidly entrenched organization, the American Medical Association, clings tenaciously?

Must the physician's economic individualism—which the American Medical Association claims it is safeguarding—give way to group practice or to some other system considered adapted to the needs of modern American society?

Should the medical profession be unable or unwilling to make these adjustments, does the Constitution empower any public agency to coerce them directly or indirectly?

PROBLEM CLOSELY STUDIED

A "totalitarian" settlement of such issues, it was pointed out last week, would be made by decree. However, the present grand jury is only one step in a determination which follows the historic American pattern—invoking many minds, many points of view, both lay and professional, from which will be distilled the new law of the land.

Weeks of study by Department of Justice experts preceded the calling of the extraordinary grand jury. The twenty-three engineers, salesmen, and businessmen over whom Foreman W. R. Bell presides daily in the new Police Court Building are the second stage of the inquiry.

Before them last week four special assistants to the Attorney General laid a general outline of the health problem of the United States. Four experts, three of them listed in "Who's Who," discussed the need they had found for some step to modernize the economics of the healing science.

* Excerpts from an article by Dillard Stokes.

CALIFORNIA STATE HUMANE POUND ACT

For purposes of record, this initiative act, as its title was given on the November 8, 1938, ballots, and the argument against its passage, appear below:

2. *Regulation of Pounds. Initiative Measure.* Defines "pounds" and regulates conduct thereof; prescribes duties of poundmasters; prohibits sale, surrender or use of unwanted or unclaimed animals in pounds for scientific, medical, experimental, demonstration or commercial purposes; exempting kennels, buildings or enclosures maintained on own premises by any accredited college, university or any medical research laboratory licensed under State Medical Practice Act, provided cats and dogs therein were bred on the premises or lawfully acquired under provisions of measure; directs that unclaimed and stray animals for which no bona fide home is available be put to death by an approved humane method.

ARGUMENT AGAINST INITIATIVE PROPOSITION NO. 2

What purports to be a simple humanitarian measure, but what is actually *antivivisection* legislation designed to throttle medical research into the causes and cures of disease, appears on the ballot under the misleading title of "State Humane Pound" act.

Having attempted long and unsuccessfully to pass antivivisection laws before the California Legislature, the antivivisectionists now appeal to the voters for the first time since 1922, when they were defeated by the overwhelming majority of 288,444 votes.

Convinced that the public cannot be stampeded into approving of antivivisection through any straight-forward presentation, the antivivisectionists now choose indirect means of accomplishing their purpose. This is their newest strategy, admitted in their own publications. They have chosen the dog "because the dog appeals to everyone." It is an entering wedge for similar laws everywhere.

Stray animals are weighed against babies by the antivivisectionists. Under the "Humane Pound" act the babies would lose!

Careful analysis by eminent lawyers discloses many "jokers" in the apparently innocuous "Humane Pound" act. The broad definition of "pound, publicly or privately conducted," makes everyone a "poundmaster" who accumulates dogs or cats for disposal, other than for sale as pets.

Animals for experimental or demonstration use would have to be bred en masse on the very premises of the medical institutions, an entirely impracticable procedure. "Domestic animals" are not defined, nor is an "approved method" of destroying them. The way is opened wide for persecution through constant inquisition.

Section 10, in particular, besides being ambiguous, is so all-inclusive as entirely to prevent scientific research involving the use of animals and thus cripple innumerable life-saving activities in California.

Untold benefits have come through animal experimentation. It is responsible for Lister's development of antiseptic surgery. Without it there would be no present-day control of diphtheria, smallpox, syphilis, and diabetes, to name but a few diseases which once scourged mankind. Advances constantly being made in protecting the public health, testing of life-giving serums, standardization of drugs, safeguarding of canned and other foods, and the evaluation of an adequate diet—all would suffer a severe set-back if this legislation were to pass.

The act would handicap California manufacture of serums for treatment of anthrax, blackleg, Bang's disease, and other ailments of cattle; brain disease and tetanus in horses; distemper, blacktongue, "yellows," and nutritional disorders in dogs; hog cholera and other diseases of swine; anthrax, doby mouth, and other ills of sheep, and innumerable diseases of poultry such as pox, cholera, coccidiosis, and flukes.

The mis-named "Humane Pound" act is an intelligence test for the people of California. Foremost educators, professional and lay men and women, and scores of scientific societies urge its defeat. Any doubt that it is an antivivisection measure is dispelled by the fact that the officers of the "California Citizens Committee for State Humane Pound Legislation" and those of the "California State Antivivisection Society" are one and the same!

Vote against the "Humane Pound" proposal. If you do not kill this measure it may kill you.

Rufus B. von KleinSmid,
President, University of Southern California.
Ray Lyman Wilbur,
President, Stanford University.
P. K. Gilman, M.D.,
San Francisco.

THE NATIONAL CANCER INSTITUTE ACT*

The anticancer movement in all its converging trends—toward education of the public and of physicians, toward improvement and expansion of clinical cancer service, and toward continuous research—resulted last August in the passage by the Congress of the National Cancer Institute Act upon the provisions of which I shall make some explanatory remarks and comments. The character of the act and the circumstances of its passage are, I believe, unique and illustrate how well prepared the ground is for well considered anticancer legislative action. The purpose of the act is to provide for and to foster the continuous study of the cause, the prevention, the diagnosis and treatment of cancer. "With a view to the development and prompt use of the most effective methods of prevention, diagnosis and treatment of cancer there is hereby established in the Public Health Service a division, which shall be known as the National Cancer Institute." In every provision of the act it is stated clearly that the purpose is to further the study of the causes of cancer and the application of useful knowledge, old and new, to the prevention, diagnosis and treatment of cancer. In other words, the act provides for cancer research, clinical and experimental, as well as for the advancement of clinical cancer service. In support of this comment I read practically without change Section 2 of the Act:

The Surgeon General of the Public Health Service is directed, in coöperation with the National Advisory Cancer Council:

(*a*) To conduct, assist, and foster researches, investigations, experiments, and studies relating to the cause, prevention, and methods of diagnosis and treatment of cancer;

(*b*) To promote the coördination of researches conducted by the National Cancer Institute and similar researches conducted by other agencies, organiaztions, and individuals;

(*c*) To procure, use, and lend radium as hereinafter provided;

(*d*) To provide training and instruction in technical matters relating to the diagnosis and treatment of cancer;

(*e*) To provide fellowships from funds appropriated or donated for such purpose;

(*f*) To secure for the Institute consultation services and advice of cancer experts from the United States and abroad, and to coöperate with state health agencies in the prevention, control, and eradication of cancer.

At this point a brief explanation of the National Advisory Cancer Council is in order: The purpose of this Council, which is an appointed body of six members with the Surgean General as chairman, is to make recommendations to the Surgeon General with respect to carrying out the provisions of the act. Specifically, the Council is authorized to make recommendations in regard to cancer research projects submitted to it or initiated by it; to spread information about cancer studies "for the benefit of health agencies and organizations, physicians, or any other scientists, and for the information of the general public;" and "to review applications from any university, hospital, laboratory, or other institution, whether public or private, or from individuals, for grants-in-aid for research projects relating to cancer, and certify approval of projects deemed worthy of support."

The act provides $750,000 for the building and equipment of the National Cancer Institute. This building will be ready for use in the latter half of 1939. It will be erected at Bethesda, Maryland, on ground donated by Mr. and Mrs. Luke I. Wilson, and where the new buildings of the National Institute are in process of construction. For the fiscal year ending June 30, 1938, $400,000 was appropriated for the Cancer Institute, "of which $200,000 shall be available for the purchase of radium." For the present fiscal year (1938-1939) $400,000 has been appropriated for carrying out the purposes of the act, without any specific restrictions.

On the basis of this statement of the provisions of the act I shall not discuss briefly the steps taken to carry them into effect.

First, radium. As stated $200,000 was available for radium during the past fiscal year. The act itself authorizes the purchase of radium from time to time and that it be available for carrying out its purposes; further that "for such consideration and subject to such conditions" as shall be prescribed, radium may be loaned to institutions in the United States "for the study of the cause, prevention, or methods of diagnosis or treatment of cancer, or for the treatment of cancer." While the complicated and difficult details connected with the distribution by loan of large quantities of radium have not yet been settled fully, actual purchase has been made and arrangements for loans are underway in coöperation with state health departments.

Second, training in technical matters relating to the diagnosis and treatment of cancer. Obviously the framers of the act were impressed with the needs of special cancer training because facilities may be provided for such training to proper persons and such persons or trainees may receive a per diem allowance not to exceed $10 while in training. The existing facilities for systematic postgraduate training in clinical cancer work are inadequate but can be increased without much difficulty. A small number of acceptable cancer centers are prepared to accept trainees and a number of

* By Ludvig Hektoen, M. D., Executive Director, National Advisory Cancer Council.

active and tentative appointments have been made. A graduate of an approved medical school, who has completed a year's internship in an approved hospital and who is not over forty years of age, may be eligible for training provided he intends to devote himself to the clinical diagnosis and treatment of cancer and can furnish reasonable assurances that opportunities for such work will be available when he finishes his training. As a rule stipends for training will not be awarded for continuation of the applicant in the position he is holding at the time he makes his application. Only in exceptional cases will training be provided for a period of less than a year. In most cases at least two to three years of training are necessarily contingent upon the applicant being personally acceptable to the approved institution where training is to be received.

Third, fellowships in cancer research. The act authorizes research fellowships "with such stipends or allowances" as may be deemed "necessary to procure the assistance of the most brilliant and promising fellows from the United States or abroad." There can be no question but that fellowships with reasonable stipends are highly important in developing first-rate men to study cancer, which is the great need of cancer research at this time. With this objective in mind several fellows have been appointed for work on various phases of experimental and human cancer—biochemistry, carcinogenesis, genetics, pulmonary cancer, pathology. It is recognized that appointees should be first-rate men and women with promises of productive scholarship and careers of significance. The possible fate of every candidate for fellowship must be considered with special care.

Actions by the National Advisory Cancer Council. When the Cancer Act went into effect the cancer research in progress in the National Institute of Health and at Harvard Medical College under the auspices of the Public Health Service was transferred to the National Cancer Institute which was placed under the direction of Dr. Carl Voegtlin. The Council has considered and approved this general program and also additional projects dealing with pulmonary cancer and with cancer statistics and incidence. The study of the incidence of cancer in different places is yielding significant results.

The Council is charged with the duty of passing upon applications for grants-in-aid for research projects relating to cancer. So far the Council has considered seventy-seven applications, of which sixteen have been approved; amount $125,002.50.

The largest project of research as well as clinical nature to engage the consideration of the Council so far concerns the establishment of a cancer unit in the Marine Hospital at Baltimore. The regular beneficiaries of the Public Health Service east of the Mississippi River, the medical care of which falls upon the Service, number approximately 170,000. Of these some 40,000 are in the cancer age and consequently some 4,000 cases of cancer will require treatment in the course of the next twenty-five to thirty years. After thorough consideration the Council approved in principle plans for a complete cancer unit with clinical, research and teaching functions.

The Cancer Act directs that there shall be "coöperation with state health agencies in the prevention, control, and eradication of cancer," and steps have been taken to carry that provision into effect.

July 30, 1938.

CALIFORNIA MEDICAL ASSOCIATION MEDICAL SERVICE PLAN*

The California Medical Association's announcement of November 14, 1938, as authorized by the Council at its meeting of October 12, is as follows:

Dr. W. W. Roblee, of Riverside, President of the California Medical Association, with a membership of 6,000 physicians, made an important and interesting announcement today.

"The Council of the Association," said Doctor Roblee, "at its meeting in San Francisco today, directed its Committee on Medical Service to put into final form a plan by which medical and hospital service will be furnished to citizens of California and their dependents on a monthly payment basis.

"The plan will be operated by the California Medical Association or its representatives and will provide the services of all licensed doctors of medicine in the State who are willing to abide by the rules and regulations necessary to operate the plan.

"The subscribers will have free choice of physicians in this group and also of hospitals for it is contemplated to use the facilities of the three large hospital service associations which have pioneered hospital service plans in California, Insurance Association of Approved Hospitals in the Bay Region, the Intercoast Hospitalization Insurance Association in the Sacramento Valley and the Associated Hospital Service of Southern California in Los Angeles and other southern counties.

"The Council has called a special meeting of the House of Delegates of the Association to meet in Los Angeles on December 17 to approve the final plans which will speedily be put into operation after their approval."

* * *

Press clippings concerning the announcement follow:

City Health Service Based on State Plan

California Association Prepares Details of Medical Insurance Program

San Francisco's Health Service System, with six successful weeks behind it, has been much of the inspiration of the state-wide plans now being formulated by the California Medical Association, it was revealed here today.

"The suggestions offered by the Medical Association are basically identified to our plan," Jesse B. Cameron, Secretary of the Health Service Board, said.

"The proposed rules of the medical society have agreed to give power, as we have, to a medical director with rules and regulations for the benefit of the system," Mr. Cameron said.

A warning against permitting history to repeat the experience of the state compensation was sounded by the health service secretary.

"A good law was neglected by the physicians. They held back and neglected to interest themselves so the state and private insurance covered the patient. Thus the patient failed to get the choice of his own physician. Under our plan that privilege is granted," Mr. Cameron said.

Meanwhile, the state association's committee on medical service wrestled with preparation of the state-wide health insurance program for submission to the Association's House of Delegates December 17.

Dr. Karl L. Schaupp, President of the Association's Executive Council, said a list of volunteer doctors would be drawn up and that subscribers to the plan would have their choice from this list. No doctor, he added, will be required to take more patients than he can serve efficiently.

"We shall have to formulate some basic scale of pay for these practitioners," Doctor Schaupp continued. "There are also the problems of fixing a monthly charge for complete medical and hospital care and an additional fee for dependents."

Doctor Schaupp denied the Association was forced to take the step by the threat of "socialized medicine" by the Federal Government.

Formulation of the statewide plan is in the hands of Drs. Charles Dukes of Oakland, T. Henshaw Kelly of San Francisco, and Lowell Goin of Los Angeles, assisted by Howard Hassard and Hartley F. Peart of the Association's legal staff.—San Francisco *News*, November 15, 1938.

* * *

Cutting Medical Costs

Threatened with medical regimentation by the Federal Government the California Medical Association is proposing a form of socialized medicine to be set up by the doctors themselves. It would be similar in some respects to the hospitalization insurance being taken out by many citizens on a small monthly fee basis.

The proposed plan is to be presented to the House of Delegates of the State Association at a meeting in Los Angeles next month. It was explained to Sacramento medical men last night.

* See also editorial comment on page 425; and official and other notices in California Medical Association department, on pages 472 and 478.

Under the plan medical and hospital service will be furnished to Californians and their dependents on a small monthly payment basis. They can select any physician they choose from a list of those who have agreed to abide by the rules and regulations. Existing hospital insurance plans will be merged into the medical service arrangement thereby making one small monthly fee apply to both.

The government's threat to regiment medicine is more than a mere gesture as the doctors well know. In order to prevent themselves being placed under Federal control the California medical practitioncrs are seeking to establish a system that will provide proper health care for people of moderate income without it continuing a burden on the patient and his family.

Any congressional act placing the care of the sick under Federal regulation will supersede any private plans by the California medicos. However, if the monthly medical protection scheme succeeds it may cause Congress to back down and keep hands off the medical profession.

It would seem preferable to keep medical treatment out of politics, for many reasons. But this treatment must be placed within the reach of all and must no longer be a burden on those of limited income. If the medical men can solve the problem themselves, to the complete satisfaction of the public, they may avoid Federal regimentation. If not they must expect it and will have to comply with whatever regulations the government may set up.

The threat of Federal control, the voluntary step taken by the doctors to place medical treatment within the reach of those of low income and low-cost hospitalization all mean that more widespread health protections are at hand and that rich and poor alike will benefit from them.— Sacramento *Union*, November 16, 1938.

* * *

Low Cost Medical Care

The California Medical Association wisely anticipates the growing demand for low cost health insurance and medical and hospital service.

It is formulating a plan to be presented to its members next month for a vote. There is little doubt that the vote will be in favor of the plan, if the plan is practical and meets with the need of both physicians and patients for a system of medical care as free as possible from regimentation.

The California Medical Association has already recognized formally the need for some system that will give to a greater number of people the benefits of modern medical methods and hospital care.

This need has been apparent for many years.

It was recognized by the National Committee on Medical Care and Costs, headed by President Ray Lyman Wilbur of Stanford.

In the last few years the public demand for such a system has been growing, and now it is plain that if the medical profession does not act voluntarily to meet that demand, it risks the imposition of some bureaucratic system of medical and hospital insurance by the government.—Oakland *Post-Enquirer*, November 16, 1938.

* * *

A Constructive Movement

In initiating a movement intended to develop a statewide health insurance plan, the California Medical Association Sunday took a constructive step forward. Any plan that has for its purpose the protection of any considerable portion of the people against the time of ill-health, if pitched on a sound economical basis, will be welcomed as a service to humanity.

Whether the doctors of medicine have in mind beating the government to it doesn't matter. But if that is the motive lurking back of the proposal, well and good. It is much better that any plan to provide health insurance should come from private individuals as a result of individual effort than it is that the taxpayers, through political appointees, foot the bills. With the enterprise in the Medical Association's hands it will be intelligently and efficiently managed—a boon to those directly concerned.

Any plan the Association works out and gives its approval to is by far to be preferred to one a politically minded group arranges and operates.—Alameda *Times-Star*, November 15, 1938.

* * *

Insurance—Health Plan Expanding

Comprehensive health insurance has been planned for some time by the Insurance Association of Approved Hospitals, Dr. W. E. Mitchell, the association's president, said yesterday.

Mitchell, speaking in support of the plans for medical care insurance approved by the Council of the California Medical Association, reviewed groundwork already established in nine counties, with a participating list of thirty-nine hospitals and a membership of 22,000 members.

Details for the California Association's procedure have not yet been announced, but it is understood the policy will be similar to that of the Insurance Association, whose members receive services and have the costs paid by the common fund.

"There has never been any question but that meeting the cost of illness is difficult for certain income groups," Doctor Mitchell said. "One factor contributing to this has been the large amount of free and part-pay work done in and by hospitals of the metropolitan area.

"It was this condition which caused us to organize the Insurance Association, so that costs of illness might be distributed among those rightfully obligated and at the same time allow everyone to preserve his self-respect by independence of charity.

"What we have been able to do already will be amplified many times over under the combined service now planned. Subject to the California Medical Association's House of Delegates' action, our association will be representative of the new service, a function which we are now ready to perform."—San Francisco *Chronicle*, November 16, 1938.

* * *

Health Plan Gets Flood of Applications

The City Employees' Health Service System was receiving a flood of applications for membership yesterday on behalf of dependents of employee members.

Beginning next Tuesday dependents will be accepted only after physical examinations. This will rule out, for those applying after that date, correction of chronic or pre-existing ailments at the expense of the insurance system.

A report from the medical department of the system yesterday indicated a surplus from the first month's operation of between $1,500 and $2,000, according to Jesse B. Cameron, secretary.

The system's receipts were $23,234 from 9,293 employee members, $2,375 from 950 adult dependents, and $608 from 518 minor dependents, or a total of $26,217. Expenses of the medical department were $13,661 for 329 doctors, $4,287 for hospitals, $1,182 for x-ray laboratories, and $524 for clinical laboratories, a total of $19,656. Administration expenses had not been fully computed.

Of the 10,761 members, 1,364 were given medical service during the month. About one hundred operations were performed. Physicians who took a chance under a unit system of receiving only part of their fees, were being paid in full.

Membership, with certain exceptions, is compulsory for city employees, from whose pay checks $2.50 per month is deducted. Membership for dependents is optional. The adult dependent payment is the same as for employees. Children obtain membership for $1.50 per month where there is but one in a family; at $1 each where there are more than one. —San Francisco *Chronicle*, November 11, 1938.

* * *

Doctors Stimulated

President Roosevelt's announced intention of establishing a nationwide, low-cost group health service has proved to be a "shot-in-the-arm" for California's medical fraternity.

The California Medical Association, long opposed to group health service on any but a private basis, and sometimes aggressively inimical even to private associations providing it, will decide next month whether to accept or reject recommendations of its medical service committee that a comprehensive system be established.

Indications are the recommendations will be accepted because they are backed by several of the leading physicians of the state.

The plan contemplates a system to be operated by the Association. It will provide participation by all licensed doctors who are willing to abide by the rules. Citizens may obtain the service by paying a nominal monthly fee and will have free choice of physicians from the accredited list. Facilities controlled by the three large hospital service associations of the state will be available.

Now that they have embraced the idea some of the doctors express the hope that the California plan will be a model for the national system President Roosevelt proposes. Some others, a bit franker, say they hope to beat the National Government to the punch in order to avoid having a Federal system imposed upon California. That is another way of saying they hope to avoid "state medicine" in California, "state medicine" being a term that makes a majority of practitioners shudder.

No matter what produced the sudden determination of the Association to launch its project the decision should be hailed with gratification by all Californians.

For too many years the public has waited patiently for relief from the high and frequently prohibitive costs of medical care.

Let us hope no hitch will prevent final approval and early establishment of the proposed plan in this state.—San Francisco *News*, November 15, 1938.

Medical Aid Plan Will Be Discussed in City Tomorrow

State Association Proposes Socialized Monthly Program

The California Medical Association's tentative proposal to establish a medical insurance plan for Californians will be discussed here tomorrow night when Dr. W. W. Roblee of Riverside and Dr. George Kress of San Francisco, president and secretary, respectively, of the Association, pay their annual visit.

Dr. Frederick N. Scatena, Sacramento district counselor of the organization, said the Association Council, meeting in San Francisco on Saturday, authorized its medical service committee to draft into final form a plan to provide medical service on a monthly payment basis, supplying free choice of hospitals and physicians.

Three Groups Would Be Used

The plan contemplates utilizing the facilities of three large pioneer hospital service associations, the Intercoast Hospitalization Insurance Association in Superior California, the Insurance Association of Approved Hospitals in the San Francisco Bay area, and the Associated Hospital Service of Southern California.

"The plan would be operated by the California Medical Association or its representatives and would provide the services of all licensed doctors of medicine in the state who are willing to abide by the rules and regulations necessary to operate the plan," Doctor Roblee stated.

Delegates Will Vote

The medical association's House of Delegates will vote at a special meeting in Los Angeles on December 17 on whether it will adopt the program.

The meeting here tomorrow night will be in the Sutter Hospital. Dr. Dave F. Dozier, president of the local body, will preside.—Sacramento *Bee*, November 14, 1938.

SOCIALIZED MEDICINE

National debate over the proposal to socialize medicine has brought to the fore another angle of the discussion few who criticize the medical profession pause to consider. If we are honest with ourselves we must admit it is doubtful whether more doctoring is as badly needed as is some device to persuade the common or garden variety of patient to do what the doctor tells him.

As a matter of fact, most of us think we know more about ourselves than the doctor possibly can. At least, if we do not think so, we give a letter-perfect imitation of thinking so. To this fact is due a great deal of the enormous cost for medical attention in the United States which is the fundamental basis from which those who would socialize medicine bring their argument.

Frankly, the nation needs socialized medicine much less than common sense. If patients had more of that commodity, and realized the folly of seeing a physician and then stubbornly refusing to follow his instructions, there would be less serious illness and fewer premature departures from this vale of tears by persons who are really ill but knew entirely too much to follow their doctor's advice.

WE PAY LITTLE ATTENTION

The manifest folly of hiring a dog and doing one's own barking ought to require no argument.

It is not that we remain away from the doctor, of course, because we rush to him, most of us, at the first twinge of pain. We suffer his prods and the various tests he makes, and answer his various questions as truthfully as possible, maybe, provide whatever he wishes for laboratory purposes, then fearfully await his verdict.

And when we get that advice, we pay little attention to it.

Perhaps we are told our appendix should be removed. But we ignore the advice either because there is no pain in that region or what pain there was has disappeared. Or we hear that a strict diet is indicated because of high blood pressure. Perhaps the examination has disclosed a bad heart, with a condition of sufficient gravity to cause the doctor to prescribe a month or two in bed.

Having had the examination and received the verdict, and the advice, what do we do about it? The fact is we usually do nothing about it. We decide the doctor knows nothing about it anyway. Or we figure a modified form of the regimen he prescribed ought to do the trick. We stick to the diet for two days, perhaps, then fall off with a bump.

SAME OLD QUESTION

If the month or two in bed was indicated, we ask ourselves and anybody who will listen, how in the name of heaven can we spend a month or two in bed and earn a living at the same time? So presently we delight our heirs by dropping off and the living we had to make all at once becomes of no importance.

A further elaboration of this theme would be merely redundant.

We all know we are too self-willed and impatient and lazy to follow a doctor's directions. We all know that coöperation and obedience are the rarest virtues known to mankind. Until we Americans, rich and poor, agree to coöperate with our medical adviser and obey his decrees, discussion of bigger and better medical attention is just so much piffle.—*San Bernardino Telegram*, October 7.

WASHINGTON MERRY-GO-ROUND

Government Group Health

While the battle between "Group Health" and the American Medical Association flares in District of Columbia courts, it is not generally realized that the New Deal has established, and in most cases subsidizes, group health units in twenty-five states.

Farm Security Administration—heir to Tugwell's Resettlement—is the parent of these units, with the purpose of keeping farmers in health so they can work out of the debts they owe FSA.

Government Group Health also had to fight the American Medical Association, and thrived on the opposition. The idea is spreading so widely that it amounts to a lot more than an expedient for FSA to get its money back. It is fast becoming a nation-wide practice.

In South Dakota, for example, one-half of all the farm families of the state are eligible for group health treatment. Member families pay a regular fee—sick or well—of $2 a month, and the doctor takes care of them for anything from a toothache to child-bearing.

Doctors have to forego fancy fees, but they are glad to have the business. Here are some sample fees paid by group health units:

For extracting a tooth, $1.50; for a doctor's house call within town limits, $2; for an office call, $1.40; for hospital ward service, $2.50 per day; for complete obstetrical examination before childbirth, $3.40; for childbirth, $20. The maximum charge for a major operation is $50, the minimum $15.

Where members of a group health unit cannot pay their $2 monthly fee, the Government lends them the money. On these loans, made in the past, about 80 per cent is paid back. The balance represents a direct Federal subsidy.

Though the American Medical Association has fought the group health plan, state medical associations affiliated with American Medical Association are working with Farm Security in every state where the units have been established.—San Francisco *Chronicle*, October 24, 1938.

CAPITAL DOCTORS BACK SOCIALIZED MEDICAL PLAN

Leaders Warn Action Must Be Taken To Block State Action

The Sacramento Society for Medical Improvement last night unanimously endorsed and pledged its support to the California Medical Association's proposal to offer Californians joint medical and hospitalization insurance.

More than fifty of Sacramento's leaders in medicine were present in the Sutter Hospital auditorium to hear Dr. W. W. Roblee of Riverside, President of the California

Medical Association, and Dr. George Kress of San Francisco, secretary of the association, explain the plan which the state organization is drafting into final form to be voted upon by the physician delegates at a convention in Los Angeles December 17.

WOULD BLOCK FEDERAL ACTION

Both officials warned that unless such a program is adopted, legislation, both State and Federal, which would put into effect some form of socialized medicine, is imminent.

"The heat is on from many sources for some type of medical insurance for the great middle class of our State," declared Doctor Roblee. "We have heard frequent warnings from Washington and from the President. We know from past statements, both by the governor elect and the lieutenant governor elect, that they are going to insist upon some form of adequate medical care—social medicine, if you please—during their terms in office.

"We are unalterably opposed to compulsory medical insurance. We know it would not work here. Neither would socialized medicine. We must put forward an intelligent, workable plan of our own and forestall forced adverse action by nonmedical men."

MONTHLY COSTS

Doctor Kress intimated that the cost of the Association's insurance probably will be about $2.50 a month. He stated that 500,000 persons in California might take advantage of the plan. He also warned against the enactment of compulsory medical care insurance.

"If our plan will prevent the enactment of adverse legislation or the enactment of a compulsory insurance law that would change the whole picture of medical practice in California, we will not have failed," he said.

"If we are to be regimented into a program in which dull mediocrity is the rule, the service we would give would be far below the excellent standards we give gladly and freely today."

COMPLETING ANNUAL TOUR

Doctors Roblee and Kress are completing an annual tour of Superior California medical associations. Dr. Dave F. Dozier, president of the local association, presided at last night's meeting.—The Sacramento *Bee*, November 16.

UNITED STATES TO KEEP SECRET NAMES OF WITNESSES AGAINST AMERICAN MEDICAL ASSOCIATION*

Justice department attorneys handling the extraordinary grand jury investigation of the fight by "organized medicine" against the group health movement decided to try to keep secret the names of witnesses to be called before the grand jury.

The inquiry will reconvene, with jurors listening to witnesses whose identity will not be revealed now, if at all. The purpose in refusing to make public in advance names of witnesses, it was explained, is to conform to Justice Proctor's admonition to keep proceedings secret.

The department, however, it is understood, intends to spend the first three or four days in calling witnesses who will give the "background" of the group health controversy, particularly from the standpoint of complaints that the American Medical Association and local medical organizations have tried to suppress the movement.

GROUP HEALTH ASSOCIATION CHARGES LATER

Not until then will the grand jury hear that part of the story which relates to charges that the District Medical Society, with the help of the American Medical Association, has endeavored to break up Group Health Association, Inc., local organization formed by Government workers in the executive establishment for the purpose of spreading medical costs.

The investigation relates entirely to the district situation, and it is on this basis that indictments will be sought for violation of the Clayton antitrust act, both against leaders of the District Medical Society and the American Medical Association.

MAYO SURGEON WITNESS

The background testimony, designed to give the general picture for the entire country, opened yesterday with appearance before the grand jury of Dr. Hugh Cabot, Mayo Clinic surgeon and a savage critic of the American Medical Association. It is understood Doctor Cabot described the organization of the national medical group.

Doctor Cabot, as well as witnesses who will follow him in laying the groundwork for the narrative relating to the district, are appearing voluntarily. Other witnesses will be subpenaed. Doctor Cabot concluded his testimony at the afternoon session.

Doctor Cabot's appearance launched a prosecution which —if the organizations are indicted—is due to lay squarely before the Supreme Court the long disputed problems of "socialized medicine" and Government control of the healing science.

TO FIGHT TO THE LAST

The American Medical Association has challenged the Government to take it to court and promised to resist to the utmost efforts to brand it as a monopoly.

Doctor Cabot has charged that private practice in this country is not able to safeguard the health of the people and has championed group efforts to place medical treatment within reach of the people generally. The American Medical Association opposition to such movements he calls "medieval."

* Excerpts from a press article by Dillard Stokes.

AMERICAN MEDICAL ASSOCIATION APPROVES UNITED STATES PLAN FOR SWEEPING HEALTH PROGRAM

Washington, November 1—(UP).—Government health officials began drafting today details of an $850,000,000 a year national health program after reaching agreement in principle with the American Medical Association.

Prominent doctors and medical economists returned home after a seven-hour conference which placed four out of five of the Government's major proposals in a state where "plans for action may now be formulated," officials said.

The program calls for:

1. A $200,000,000 expansion of preventive public health services and broadening of the social security act to increase provisions for maternal and child care.
2. A hospital expansion program to increase the facilities available for medical care.
3. Extension of medical assistance now available to low income families.
4. Development of a plan of insurance against loss of wages during sickness.

These points were part of a broad health improvement plan advanced by President Roosevelt's special interdepartmental committee on coördination of health and welfare activities at the national health conference last July. The American Medical Association later approved them in substance.

The program would be organized on a ten-year basis. Economists estimated that $850,000,000 would be the peak annual expenditure during that period.

On one point the conference yesterday failed to reach agreement—establishment of compulsory health insurance under Government supervision. The American Medical Association rejected that plan at the meeting of its House of Delegates in Chicago several weeks ago and yesterday's conference apparently brought the two groups no closer together on that issue.—San Francisco *Chronicle*, November 2, 1938.

TWENTY-FIVE YEARS AGO†

EXCERPTS FROM OUR STATE MEDICAL JOURNAL

Vol. XI, No. 12, December, 1913

From Some Editorial Notes:

The Second Decade.—This issue of your Journal completes the first volume of the second row of ten and is sturdier by far than its elder brother of ten years ago. Before discussing anything else, the editor (late Dr. Philip Mills Jones) desires to express his sincere thanks to all those who have helped to make up this last volume and for the almost perfect courtesy and consideration which have been extended to him and to the Publication Committee, alike by those whose contributions have and have not been accepted. Two things are to be distinctly noted as indicating advancement: first, the quality of the papers written by our physicians in California has improved very markedly in the last ten years, not alone in the matter presented but also in the care displayed in writing and the preparation of manuscripts; second, the circulation of the Journal is slowly but surely increasing in spreading through the country, and this in spite of the fact that no agents are employed and no "sample copies" have been sent out. . . . Of course, the Journal and its Publication Committee and its editor have been criticized; it would be impossible to be otherwise; it would be impossible to print a single issue that would entirely satisfy every one of the three thousand readers. Questions arise that are matters of the gravest policy, and in determining a line of action, personal considerations must be ignored, and so some persons' feelings are apt to be hurt. But while that is to be regretted, it cannot be helped unless the character of the Journal is to be entirely changed and it is to become a spineless thing, repeating only pleasant words and expressing no definite attitude on any vexed question, and your editor believes that the vast majority of our members to not desire such a change. . . .

* * *

Ye Humours of Ye Blood.—We travel quite a lot in circles, we human animals; not so much is it "the swing of the pendulum," of which we hear a great deal, as a real circular movement. Years ago, every abnormal condition was due to some humor of the blood; the blood was too thick, or too thin, or was bad; "bad" was a very broad and catholic word. Then came a time when all that "humor" business was laughed to scorn and the blood was never at fault; always there was some specific or other thing to be reckoned with and fought to a finish; the blood was a fluid stream that remained always the same. But see how we have changed in these last few years! . . .

* * *

Our Critics.—There appears to be a disposition on the part of the "many headed" to bewail the quality, or rather the lack thereof, of our editorial comment. . . . Our critics would have us eschew politics or reference to the actions of politicians, even when these bear directly upon matters medical. They weary alike of "fulminations against vendors of proprietary nostrums" and "impersonal diatribes directed at illegal practitioners." . . . They profess Wagner, but their ear is attuned to ragtime. They do not wish to be instructed. They dread to be exhorted. They would be amused. But that is really a large undertaking. Said Garrick, "I am always ready for tragedy at any hour of the day or night. But comedy! Ah, that is a serious matter!" Reflection would seem to show that our critics have collectively debarred us from discussing about everything except personalities. To be sure, personalities are always entertaining—at least, to those who are, to use a slang expres-

(Continued in Front Advertising Section, Page 16)

† This column strives to mirror the work and aims of colleagues who bore the brunt of Association activities some twenty-five years ago. It is hoped that such presentation will be of interest to both old and new members.

BOARD OF MEDICAL EXAMINERS OF THE STATE OF CALIFORNIA†

By Charles B. Pinkham, M.D.
Secretary-Treasurer

Board Proceedings

At a regular meeting of the Board of Medical Examiners held in Sacramento, California, October 17 to 20, inclusive, over sixty applicants wrote the examination, including physicians and surgeons, drugless practitioners, and chiropodists.

The following changes were made in the status of licentiates:

Frank A. Pearl, M.D., license revoked on March 10, 1938, was restored on October 17, 1938, and he was placed on probation for a period of five years.

Benjamin Belove, M.D., charged with aiding and abetting, was on October 20, 1938, found guilty and placed on probation for a period of three years.

James Rossward Carr, licensed chiropodist, charged with the use of a fictitious name, was on October 18, 1938, placed on probation for a period of three years.

Clarence Carleton Chappelle, M.D., charged with alleged illegal operation, was on October 18, 1938, found guilty and his license to practice in this State was revoked.

Ralph Culbertson Cloninger, M.D., charged with alleged illegal operation, was on October 20, 1938, found guilty and he was placed on probation for a period of five years, with the further penalty that he shall not practice prior to January 1, 1939.

Henry L. Gardner, M.D., charged with aiding and abetting, was on October 20, 1938, found guilty and he was placed on probation for a period of three years.

Abraham Gottlieb, M.D., was on October 20, 1938, found guilty and placed on probation for three years.

Leo L. Kafka, licensed chiropodist, charged with aiding and abetting, was on October 19, 1938, found guilty and placed on probation for a period of three years.

Morris Philip Kaufman, M.D., charged with alleged addiction, was on October 20, 1938, found guilty and his license to practice was revoked.

William Raymond McDannell, M.D., charged with the use of a fictitious name, was on October 20, 1938, found guilty and placed on probation for a period of five years.

Milton S. McMurtry, M.D., charged in three complaints with alleged abortion, was on October 19, 1938, found guilty and his license to practice was revoked.

Charles L. Orr, M.D., charged with aiding and abetting and use of fictitious name, was on October 18, 1938, found guilty and placed on probation for a period of five years, with the proviso that he cease practice during the period November 1, 1938, to July 1, 1939.

Irving Delphin Thorne (licensed chiropodist), charged with use of fictitious name and aiding and abetting, was on October 18, 1938, found guilty and placed on probation for a period of three years.

The following cases were continued to the next meeting of the Board, to be held in Los Angeles: Edward H. Anthony, M.D., Harry Wilson Boyd, M.D., Melvin B. Huff, M.D., Walter Carl Middleton (drugless practitioner), Milton F. Novotny, M.D., Joseph T. Wrenn, M.D., Thomas D. Wyatt, M.D., and William H. Young, M.D.

News Items

"The State Board of Medical Examiners, meeting here today, reëlected Dr. William R. Molony of Los Angeles as President. Dr. Clark L. Abbott of Richmond and Dr. C. B. Pinkham of San Francisco were reëlected as vice-president and secretary, respectively. Molony has been president since 1933 and Pinkham has been secretary for twenty-five years." (Sacramento *Bee*, October 17, 1938.)

(Continued in Front Advertising Section, Page 21)

† The office addresses of the California State Board of Medical Examiners are printed in the roster on advertising page 6.

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(Continued from Page 31)

the medical profession, amici curiae would like to know what it is. Furthermore, appellant's assertion that there would be no charity cases if patients were members of corporations, such as appellant, is obviously untrue. There are millions of indigent and partially indigent persons in the United States who couldn't possibly afford to pay the monthly dues charged by appellant.

Finally, the medical profession would very much prefer to do charity work and remain a profession than to become servants of money-making corporations.

IV. Appellant is not in the same legal category as fraternal societies, university hospitals, employee associations, nonprofit hospital associations and religious and charitable organizations.

Throughout its briefs, appellant has attempted to identify itself with the organizations mentioned. The contention is fully answered in the brief of amici curiae at pages 36-46. However, we desire to reiterate that this precise point was considered and decided against appellant in Benjamin Franklin Life Assur. Co. vs. Mitchell, 14 Cal. App. (2d) at 658-659.

In the brief of amici curiae, it was pointed out that appellant is a private stock corporation engaged in a commercial enterprise from which it seeks to obtain profits to pay to its shareholders in the form of dividends. It was likewise observed that the various organizations with which appellant seeks to identify itself are not commercial enterprises and are not exploiting the public for profit to themselves or anyone else.[8]

Appellant, however, continues to press its assertions and, in an effort to reply to amici curiae, triumphantly announces that many of the organizations which have operated in this state for a number of years are not "charitable institutions" (App.'s Oral Argument, pp. 33-35). Of course not. Although they are all nonprofit organizations, many of them are not charitable in the sense that medical care is furnished for nothing. Appellant, however, is not only not charitable, it is not nonprofit. It is not only not nonprofit, it is a commercial enterprise, seeking to exploit a profession.

Appellant does not seem to realize that a number of the institutions which it mentions have existed for over three-quarters of a century, unchallenged and, in fact, encouraged because they fall within an entirely different public policy than the one involved in the case at bar.

It has always been the public policy of this state, and of other states, to encourage any bona fide plan to make available medical care in localities and in industries which otherwise would be wholly without necessary medical attention. Unquestionably, the formation of employee associations in the fishing industry, in mines and in lumber camps, in order that a physician might be available when needed, which otherwise would be an impossibility, is not contrary to public policy.[9] Again, in industrial injuries, the legislature and the people have indicated that public policy requires that industrial injuries be treated by competent physicians and surgeons, regardless of all other legal and ethical questions (Cal. Const., Art. XX, Sec. 21). Hence, the Workmen's Compensation Act requires employers to furnish an injured employee with a physician (Deering's Gen. Laws, 1931, Act. 4749, Sec. 9a). Clearly, this is corporate practice of medicine, but it is corporate practice sanctioned by the law in order to promote a public policy which is deemed to be of even greater importance than that public policy which forbids corporate practice of a profession.

Railroad employee organizations were created long before Workmen's Compensation Acts and were the result of a need for medical attention in a hazardous occupation; one which often found injuries and illnesses occuring in remote places, far removed from the nearest private physician. The very nature of railroading renders this necessary even today, and, in fact, railroad employee associa-

(Continued on Page 37)

[8] It must be understood that amici curiae are relying entirely upon their own knowledge and information concerning organizations other than appellant. The record before the Court contains nothing about associations of the character mentioned by appellant. Amici curiae have not had time nor sufficient authority to obtain complete, detailed and accurate reports on the nature and scope of operation of all organizations operating in this state.

[9] Lumber camps, for example, are often located many miles from the nearest town and the nearest practicing physician or hospital. Often it is impossible to secure a physician to enter private practice in remote communities, unless some means of payment is in existence, for otherwise, actual poverty would be almost a certainty. Most important, perhaps, is the fact that necessary hospital facilities and scientific equipment could not be secured without employee organization.

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It's High Caloric Feeding

PROPERTIES OF KARO

Uniform composition
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Dextrin	50%
Maltose	23.2%
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THIS BABY has been placed in the sunlight. (1) The mother discovers the baby is blinking, so she promptly shields its eyes and much of its face from the light. (2) Since the baby's body is covered, the child will then be getting only reflected light or "sky-shine" which is only 50% as effective as direct sunlight as an antiricketic agent (Tisdall). (3) Even if the baby were exposed nude, it has never been determined how much of the ergosterol of the skin is synthesized by the sun's rays (Hess). (4) Time of day also will affect the amount of sunshine or sky-shine reaching this baby's face. At 8:30 A. M., average loss of sunlight, regardless of season is over 31% and at 3:30 P. M. is over 21%. (5) Direct sunlight, moreover, is not always 100% efficient. U. S. Weather Bureau maps show that percentage of possible sunshine varies in different localities, due to differences in meteorological conditions. (6) In cities, smoke and dust, even in summer, are other factors reducing the amount of ultraviolet light.

While Oleum Percomorphum cannot replace the sun, it is a valuable supplement. Unlike the sun, it offers measurable potency in controlled dosage and does not vary from day to day or hour to hour. It is available at any hour, regardless of smoke, season, geography or clothing. Having 100 times the vitamins A and D content of U.S.P. cod liver oil (U. S. P. minimum standard), Oleum Percomorphum can be administered in *drops*, which makes it an ideal year-round antiricketic. Use the sun, too.



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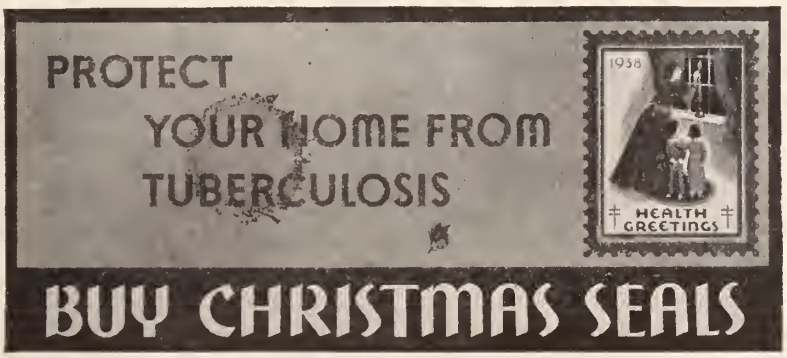
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(Continued from Page 34)

tions for the purpose of providing medical and hospital care are found in every major railroad in the United States.

With respect to the University of California Infirmary, it may be pointed out that the Regents of the University of California are authorized by the constitution to maintain, conduct and operate said hospital and to furnish medical services therein. See Davie vs. Board of Regents, 66 Cal. App. 693, pointing out that the infirmary is not conducted for profit, is a governmental function and is the fulfillment of a constitutional grant of power.

There are a number of employee associations and insurance companies operating so-called "health insurance" plans on a true indemnity basis; that is, an employee or policy holder, if sick or injured, secures his own physician in the normal manner, pays him when recovered and then is reimbursed by the insurer. Such plans do not, of course, involve any interference with the physician-patient relationship. Employee associations of this type are found in urban communities where there is no need, as in mining, lumbering, railroading, etc., and hence, no justification for the actual erection of hospitals, purchase of equipment and employment of physicians.

It should also be mentioned, in fairness to insurance companies, that since the Pacific Employers decision, that company and other insurers have confined their activities to policies indemnifying against loss occasioned by illness or injury. No control over the policy holder's selection of a physician is exercised and no contractual control over the physician's actual compensation is attempted. The legality of such indemnity contracts has not been questioned by anyone.

In concluding this point, it seems pertinent to observe that in over seventy-five years, the only persons who have seen fit to be concerned over the legal status of fraternal orders, employee associations, university hospitals and religious and charitable organizations, are appellant and one or two other commercial corporations. No governmental officer or board has ever challenged their legality. The medical profession has not complained. Why, then, this great furor? Quite clearly the sole purpose is to divert attention from appellant's own conduct.

SUMMARY AND CONCLUSION

In view of the extensive arguments contained in the briefs before the court and in order to be of assistance in marshaling the legal principles applicable to the instant case, a complete summarization will be undertaken.

1. Nature of Case: This is a proceeding in quo warranto commenced by respondent, People of the State of California, against appellant, Pacific Health Corporation, Inc., for the purpose of inquiring into appellant's right to undertake activities which constitute, in effect, the practice of medicine by it. Respondents had judgment in the Superior Court, under the provisions of which appellant is forbidden to furnish to its certificate holders the services of physicians selected by it and is required to amend its articles of incorporation in order to comply with the terms of the judgment.

2. Review of Stipulated Facts: To determine the correctness of the judgment of the Superior Court, it is necessary to review briefly appellant's activities. Pacific Health Corporation, Inc., is a California capital stock corporation, having an authorized stated capital of $50,000, divided into 500 shares of the par value of $100 each. Hence, it is an instrument through which its shareholders seek to obtain profits. Pacific Health Corporation, Inc., solicits the public for the purpose of inducing people to purchase its membership certificates. The certificates issued provide for the furnishing of medical, surgical, hospital and other services to the certificate holder, but only through physicians and hospitals "approved and designated" by appellant corporation. It is also provided that Pacific Health Corporation, Inc., is to pay for all of the medical and surgical services enumerated in the membership certificate "only while the member from the inception of sickness, ailment or injury, is wholly under the care of the services approved by the company." If a certificate holder places himself under the care of a physician not approved by appellant, "all right to services for any condition arising out of such treatment" is forfeited. Physicians "approved and designated" by the corporation are paid by it. Certificate holders are not entitled to select their own physician.

3. Corporate Practice of Medicine Is Unlawful: At the outset, it must be observed that a corporation may not, directly or indirectly, engage in the practice of law, medicine or dentistry. With respect to the practice of law, this rule has been followed in People vs. Merchants Protective Corp., 189 Cal. 531; People vs. Calif. Protective Corp., 76 Cal. App. 354; and Whelan vs. Bailey, 1 Cal. App. (2d) 334, 339.

The practice of dentistry by a corporation was expressly held to be unlawful in Painless Parker vs. Board of Dental Examiners, 216 Cal. 285; and Masters vs. Board of Dental Examiners, 15 Cal. App. (2d) 506.

(Continued on Page 39)

RECENT ADVANCES IN THE SCIENCE OF NUTRITION

IV. Some Accomplishments of Vitamin D Research

● By 1932, many of the basic facts concerning Vitamin D had been clearly established (1). At that time, the International system of denoting vitamin D unitage had not been universally adopted. However, the antirachitic potencies of a wide variety of biological materials had already been explored; the need for standardization of assay methods was appreciated; the minimum requirement of infants and children for vitamin D had been estimated; and the probable "multiple" nature of the vitamin definitely indicated.

Since 1932, the importance of vitamin D in human nutrition and the challenge of the many unanswered questions regarding this factor have served to stimulate research both in the clinic and in the laboratory. It is of interest to note some of the outstanding advances made in our knowledge of vitamin D which the past six years have brought.

It is now known that at least ten different sterol derivatives are capable of exhibiting the physiologic properties of vitamin D. Of these, only two may be considered of prime importance as far as practical application in human nutrition is concerned, namely, the activation products of ergosterol and 7-dehydro-cholesterol. The remaining forms are of considerable theoretical importance in that their identification has completely established the multiple nature of vitamin D (2).

Further research has also defined more closely not only the vitamin D requirements of normal infants and children, but also of premature infants and those peculiarly susceptible to rickets. Apart from conditions of pregnancy and lactation, the possible requirement of the human adult for vitamin D is still not known (3). The International system of expressing vitamin D potency has been universally adopted; bioassay methods have been standardized (4); and last but not least, a high degree of standardization has been attained, not only in regard to the antirachitic potency of Vitamin D preparations, but also as to the extent to which the vitamin D contents of certain foods should be increased by the various means available (3).

While some foods, including some canned foods of marine origin, are valuable food sources of vitamin D (5), no combination of common foods—as they occur naturally—can supply the demands of the infant and child for the antirachitic factor. Although there is no reason as yet to believe that the normal adult requirement for vitamin D is not largely fulfilled by a varied diet of protective foods, it is definitely known that the infant and child dietaries must be supplemented with or fortified by vitamin D.

It is in the formulation of basic diets for either infants or adults that commercially canned foods should prove especially valuable. Among the great variety of American canned foods are included special foods for use in child and infant feeding which, when properly supplemented or fortified, should meet the nutritive demands of those stages of life. For the normal human adult—whose diet hardly requires special supplementation—there are a large number of canned foods available which readily permit formulation of a varied diet of the so-called protective foods.

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(1) 1932. J. Amer. Med. Assn. 99, 215 and 301.
(2) J. Amer. Med. Assn. 110, 2150.
(3) Ibid. 110, 703 and 1179.
(4) 1936. U. S. Pharmacopeia, XI Decennial Revision.
(5) 1935. J. Home Econ. 27, 658.
1933. Science 78, 368.

We want to make this series valuable to you, so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles. This is the forty-third in a series, which summarize, for your convenience, the conclusions about canned foods reached by authorities in nutritional research.

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(Continued from Page 37)

The practice of medicine has been forbidden to commercial corporations in Pacific Employers Ins. Co. vs. Carpenter, 10 Cal. App. (2d) 592; and Benjamin Franklin Life Assurance Co. vs. Mitchell, 14 Cal. App. (2d) 654.

In addition, the legislature has declared it to be the public policy of this state that corporations may not engage in the practice of medicine. Sec. 2008 of the Business and Professions Code (Cal. Stats. 1937, p. 1255) provides that:

"Corporations and other artificial legal entities have no professional rights, privileges or powers."

The foregoing section is contained in that part of the Business and Professions Code which is a codification of the pre-existing medical practice act and is preceded by the following sections:

"2006. The term 'person' means a natural person when a right, privilege or power is conferred by this chapter upon a person.

"2007. The term 'professional' relates to the art of science of medicine and surgery and to such other arts and sciences as may be included within the field of medicine and surgery."

It is, therefore, settled beyond question that neither a corporation nor any other unlicensed person or entity may engage, directly or indirectly, in the practice of medicine or surgery.

4. Appellant's Activities Constitute the Practice of Medicine: Examining appellant's activities and applying to them the principles under discussion, it is apparent that appellant is engaging in an enterprise which is beyond its powers as a corporation, viz.: the practice of medicine and surgery. Appellant furnishes the services of physicians to its certificate holders and such physicians are "designated" by it and after performing the necessary services, are paid by it. In Pacific Employers Ins. Co. vs. Carpenter, 10 Cal. App. (2d) 592 at 597, we find that the insurance policies which Pacific Employers Insurance Co. proposed to issue contained the following clause:

"(*b*) The company or its medical director shall make written appointment of licensed physicians and surgeons to render services in accordance with the provisions hereof, who shall be termed 'designated physicians.' "

It was held that such conduct on the part of the insurance company would constitute the practice of medicine.

Likewise, in Benjamin Franklin Life Assur. Co. vs. Mitchell, 14 Cal. App. (2d) 654 at 656, the insurance company proposed to issue a policy form whereby it agreed to pay for "services and privileges, hereinafter set forth, to be and only when, rendered by legally qualified doctors of medicine and surgery . . . approved and designated by the policy holders committee of the company . . ."
This proposal was also held to contemplate the practice of medicine by the insurance corporation.

In what respect appellant's activities differ from those proposed by Pacific Employers Insurance Co. and Benjamin Franklin Life Assurance Co., it is difficult to conceive, and, in fact, there is no difference. Appellant, like the two insurance companies, wants to select and pay certain physicians for the purpose of having such physicians render medical services on its behalf, and yet, at the same time, avoid entanglement with the rule of law that a corporation may not practice medicine directly or indirectly.

The great weight of authority in other states is in accord with the rule laid down by our legislature and our Courts, viz.: A commercial enterprise may not, by designating licensed physicians to furnish professional services for which it pays, thereby circumvent that public policy which forbids the practice of a learned profession by an artificial entity. In People vs. United Medical Service, 362 Ill. 442, 200 N. E. 157, 103 A. L. R. 1229, likewise a quo warranto proceeding, it was held that a profit seeking corporation could not maintain a medical clinic, contract with physicians to perform services therein for a stated remuneration and collect fees from patients lured to the clinic by means of advertisements in the public press.[10]

[10] See, also, People vs. John H. Woodbury Derm. Institute, 192 N. Y. 454, 85 N. E. 697; Youngstown Park and F Street Ry. Co. vs. Kessler, 84 Ohio St. 74, 95 N. E. 509, 36 L. R. A. (*N. S.*) 50; In re Thomas Diagnostic Clinic, 30 Pa. Dist. Rep. 778; and Dr. Allison, Dentist vs. Allison, 360 Ill. 638, 196 N. E. 799. In 73 A. L. R. at 1327, many cases involving the practice of law are collected. It is there said: "It is to be observed that, in practically all of the cases discussing this question, the corporation has attempted to conceal its corporate practice by shielding itself behind a duly authorized attorney." The lack of success of this device is then demonstrated.

(Continued on Next Page)

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(Continued from Preceding Page)

5. It Is Immaterial Whether Appellant's Physicians Are Employees or Independent Contractors: Appellant contends that it is not violating the rule which forbids corporate practice of medicine because it does not employ physicians and pay them a stated monthly salary, but, instead, merely "designates and approves" certain physicians and pays them on a fee schedule for services actually rendered to appellant's certificate holders. Appellant asserts that its physicians are "independent contractors," not employees, and hence, it is not engaged in the practice of medicine. Merely to state the contention is to expose its fallacy. Appellant apparently assumes that the sole reason for the rule forbidding corporate practice of the learned professions is to protect professional men from control and direction by an unlicensed person in the actual performance of professional acts. This, of course, is not the case. The law forbids corporations to engage in the practice of the learned professions in order to protect the general public from the probable consequences of a divided allegiance, *i. e.,* interference with a confidential relationship. Whether appellant's "designated" physicians are considered independent contractors or employees is immaterial, because the fact remains that in either event such physicians are selected and paid by appellant and, therefore, owe their primary allegiance not to their patients, but to appellant. The public is entitled to professional services from physicians who owe but one undivided allegiance and that to the patient.[11]

Appellant's encroachment into the medical profession results in a deprivation of the right of free choice of physician. Freedom of choice of one's physician or attorney is a principle which Courts have jealously guarded for the protection of the general public, and it is contrary to the policy of the law to condone any commercial exploitation of the legal, medical or dental professions, the essence of which is to destroy freedom of choice.[12]

Finally, appellant's assertion is in substance no different from the argument made by petitioner, Pacific Employers Insurance Co. in Pacific Employers Inc. Co. vs. Carpenter, 10 Cal. App. (2d) 592, which was rejected by the Court in the following language:

"Petitioner also takes exception to the word 'employees' as applied by respondent and amici curiae to petitioner's appointees. It may be true that a member of the learned professions may not be an 'employee' of a corporation in the strict sense of the word, if that term is used to signify such right of control over the practitioner in the details of his work as to render the corporation liable under the doctrine of respondeat superior (see Pilger vs. City of Paris, supra). But we need not quibble here over the use of terms as it is immaterial whether the appointed practitioners are termed employees, agents or appointees of the petitioner. The fact remains that petitioner's agreement was to furnish, in consideration of the premium paid by the insured, the services of doctors and dentists who were to be appointed, engaged, hired or employed by petitioner for the purpose of furnishing such services. Any such agreement is clearly condemned as unlawful and against public policy by the authorities above cited" (10 Cal. App. (2d) 601-602).

Hence, it is wholly immaterial whether appellant's designated physicians be deemed independent contractors, agents or employees. The essential fact is that appellant's certificate holders are furnished medical care by appellant, acting through the medium of licensed physicians. It is clear beyond question that appellant is undertaking to practice medicine and surgery, a field which is not open to commercial exploitation by corporations.

6. The assertion of appellant that an opinion of this court forbidding it to furnish professional services will create a precedent outlawing fraternal, religious, employee and other similar organizations ignores the distinctions between a commercial enterprise such as appellant and the organizations mentioned and is, therefore, erroneous:

11 People vs. Merchants Protective Corp., 189 Cal. 531 at 536-539; Painless Parker vs. Board of Dental Examiners, 216 Cal. 285 at 298. In Rust, and Painless Parker Inc. vs. Board of Dental Examiners of Wis., 256 N. W. 919 at 921, it was held: "The law contemplated regulation of the profession to such an extent as to protect the public, not only against the acts of unprofessional conduct of licensed dentists, but also against those who, by management or some other intimate relation are in charge of those who are practicing dentistry under a single management."

12 See, pp. 3-13, supra, and Semler vs. Oregon State Board of Dental Examiners, 294 U. S. 608, 79 L. Ed. 1090; State Dental Examiners vs. Savelle, 90 Colo. 177, 8 P. (2d) 693, 82 A. L. R. 1176; Painless Parker vs. Board of Dental Examiners, 216 Cal. 285.



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Appellant's assertion is not novel and, upon analysis, manifestly lacks merit. In Painless Parker vs. Board of Dental Examiners, 216 Cal. 285, the view was expressed in the dissenting opinion that the decision of the majority of the Court would outlaw: "the manager and owner of every hospital and clinic permitting [dental operations], the many charitable agencies maintaining clinics, the infirmaries and guilds maintained and operated by the students in the university and colleges, the many dental clinics maintained by parents' organizations for the benefit of school children, as well as the owners and managers of buildings where such operations are performed" (216 Cal. at 304).

It is a matter of common knowledge that the Painless Parker case has not had the effect suggested. The case was decided in September, 1932, and charitable agencies maintaining dental clinics, university infirmaries, dental clinics maintained for the benefit of school children and other dental agencies for the aid of those otherwise unable to secure dental care have not been adversely affected at all. The Painless Parker decision has, however, prevented commercial exploitation of the dental profession by profit-making corporations.

Again, in Benjamin Franklin Life Assur. Co. vs. Mitchell, 14 Cal. App. (2d) 654, it was argued that: "there are and have been from the very beginning of this date, fraternal orders and lodges, religious organizations, benevolent associations, hospitals, hospital associations, labor union and other employee associations, which have been engaged in collecting periodic dues from their members for the purpose of furnishing them medical services to be rendered by doctors employed on a salary basis by such organizations, and in any event, by doctors chosen by the executives of the said organizations, and in whose selection the patient member has no choice. . . . Are they practicing medicine? Hardly will appellant (Mitchell) say yes, but where is the difference in principle? . . . However, if this Court should decide this case in favor of appellant, it must logically follow that all of the organizations referred to will be put in the category of violators of the law; in short, they will be outlawed" (14 Cal. (2d) at 658).

Thus, the identical contention made in the instant case was urged by the insurance company in the Benjamin Franklin case. The Court, however, rejected the claim in the following language:

"Relying on common knowledge, it is at once evident that respondent insurance association bears no resemblance to the above mentioned fraternal organizations, hence the conclusion from such comparisons, urged by petitioner, is of no probative value. The respondent association is primarily engaged in the sale of medical services, by whatever name it be called, sold through the medium of insurance. None of the features that are prominently characteristic of the above mentioned benevolent societies are included in respondent's so-called 'mutual association' " (14 Cal. App. (2d) at 659).

Since the decision in Benjamin Franklin Life Assur. Co. vs. Mitchell, no one has contended that fraternal orders, religious and benevolent institutions, labor union and employee associations, or charitable organizations, are operating unlawfully. The dark picture of the future painted by the insurance company, which it confidently predicted would result if the dicision went against it, has not materialized. The case at bar involves the same issues and the same facts as those before the Court in the Benjamin Franklin case, and there is no reason to believe that the present decision of this Court will have a different effect than the decision in that case.

(Continued on Page 43)

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Proc. Soc. Exp. Biol. and Med., 1934, 32, 241-245 ☐ Laryngoscope, 1935, XLV, 149-154 ☐
N. Y. State Jour. Med., 1935, 35, No. 11, 590 ☐ Laryngoscope, 1937, XLVII, 58-60 ☐

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(Continued from Page 41)

In the light of previous authorities, appellant's contention must be rejected, but wholly aside from precedent, it is apparent that the assertion has no justification. Appellant is a profit-seeking corporation engaged in a business for the purpose of obtaining profits with which to pay dividends to its shareholders. It is purely a commercial enterprise seeking to exploit one of the learned professions. The charitable, religious, fraternal and employee associations with which appellant seeks to identify itself are not profit-making organizations. It is a matter of common knowledge that many such organizations depend upon gifts and contributions for ordinary fixed expenses and are in existence to make available medical and hospital care to groups which would not otherwise be able to obtain needed assistance. In other instances, such as employee associations, the peculiar needs of a particular industry require that medical and hospital care be obtained by means of pooled funds. This necessity has existed in a number of industries, such as mining, fishing, lumbering and railroading, for many years and involves a public policy different from the public policy applicable to the case at bar. That is to say, where hospital facilities and the services of physicians cannot otherwise be obtained and where such facilities and services are absolutely necessary to save and preserve life, a sound public policy requires that any reasonable means designed to secure such needed facilities and services must be promoted and encouraged by the law. No one has ever questioned the wisdom of this public policy. It is a matter of common knowledge that employee associations have never been operated for the pecuniary profit of employers, employees, shareholders, or any other third party. They are not, and never have been, commercial enterprises.

On the other hand, the possibility of exploitation of the sick and injured for the benefit of those who may have invested capital in a business enterprise has been, and must continue to be, against public policy. As has been said:

" . . . Professions are not open to commercial exploitation as it is said to be against public policy to permit a 'middleman' to intervene for profit in establishing the professional relationship between the members of said profession and the members of the public" (Pacific Employers Insurance Co. vs. Carpenter, 10 Cal. App. (2d) at 595).

Appellant is a commercial organization engaged in the exploitation of the sick and injured for its own profit. Public policy condemns its activities. It bears no resemblance to those organizations which, on a non-profit basis, are furnishing medical care and hospital facilities to those persons who could not otherwise obtain medical care.

7. Conclusion: In conclusion, it is pertinent to observe that although the case at bar has been before this Court for over two years, not one association or organization of the type mentioned by appellant has deemed it necessary to appear in support of appellant's position. The instant case is one that has been watched with great interest by numerous groups and without doubt any fraternal order, university hospital or clinic, employees' associations, or religious organization having the slightest faith in the assertion made by appellant, would have appeared before this Court to urge it not to create a precedent inimicable to the interests of such association or organization.

It is respectfully submitted that both reason and authority necessitate the conclusion that appellant's enterprise violates the fundamental principles of law applicable to the relationship of physician and patient and that as a consequence, appellant cannot be permitted to continue its activities.

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Amici curiae respectfully submit that the judgment of the Superior Court ought to be affirmed.

Dated, San Francisco, May 4, 1938.

HARTLEY F. PEART,
HOWARD HASSARD,
Amici Curiae.

In 1937, 64,397 marriages were registered in California, as compared with 60,197 marriages in 1936. This is an increase of 4,200. The state marriage rate for 1937 was 9.8 per thousand population. The rate for Orange County that year was 32.8—more than three times the state rate. There were 4,603 marriages performed in Orange County last year, as compared with 4,454 in Alameda County with its much greater population. It would appear that Orange County is now the Gretna Green of California. Sierra County had the lowest marriage rate of any county in the state last year. There were three marriages registered there, giving a rate of 1.1. In Alpine County, two marriages were recorded, giving a rate of 8.3.

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*Toomey, John, A. and Baker, Conrad, S.—Journal of Pediatrics, April, 1938.

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California Mortality in 1937.—An analysis of deaths in California last year shows that diseases of the circulatory system claimed the lives of 24,598 Californians out of a total of 80,322 deaths registered in the state. This represents 30 per cent of all deaths last year as due to diseases of the heart and circulatory system. Of these 24,598 deaths due to this cause, 15,939 were in individuals 65 years of age and over. This is 65 per cent of all deaths due to diseases of the circulatory system.

Deaths from diseases of the heart and circulatory system, by age groups, in 1937:

Under 1 year	None
1 to 4 years	5
5 to 14 years	48
15 to 24 years	124
25 to 34 years	283
35 to 44 years	974
45 to 54 years	2,572
55 to 64 years	4,653
65 and over	15,939

Nearly 82 per cent of deaths from this cause were in individuals 55 years of age and over, leaving a little more than 18 per cent of such deaths among individuals who were less than 55 years of age.

Number of deaths for other causes in 1937 were as follows:

Cancer	8,670
External causes (except suicide)	6,982
Nervous system	6,563
Nephritis	5,086
Pneumonia	5,040
Diseases of the digestive system (except diarrhea and enteritis under two years of age)	4,448
Tuberculosis (all forms)	4,428
General diseases	3,282
Diseases of early infancy	3,262
Suicide	1,803
Influenza	1,274
All epidemic diseases (except tuberculosis, influenza, and venereal diseases)	1,078
Nonvenereal genito-urinary system	992
Venereal diseases	885

Of the 8,670 deaths from cancer, 4,204 were in individuals 65 years of age and over, and 2,175 were in individuals between 55 and 64 years of age. This means that almost 74 per cent of all deaths from cancer in California last year were in individuals who were 55 years of age and over. Similarly, most deaths from diseases of the nervous system and also nephritis were in individuals who were 65 years of age and over.

Deaths from the epidemic diseases, except tuberculosis and the venereal diseases, were as follows in 1937:

Typhoid and paratyphoid fever	59
Malaria	10
Smallpox	3
Measles	33
Scarlet fever	47
Whooping cough	276
Diphtheria	107
Influenza	1,274
Dysentery	116
Poliomyelitis, acute	78
Encephalitis, lethargic	51
Meningococcus meningitis	102
Other general epidemic diseases	196

It appears from these figures that whooping cough is an important cause of death in children. Out of 276 deaths from this cause, 184 were in infants under one year of age, and 81 in children between the ages of one and four years. Dysentery appears as an important cause of death, as well as meningococcus meningitis.

A complete list of deaths by causes for 1937 is as follows:

Typhoid and paratyphoid fever	59
Malaria	10
Smallpox	3
Measles	33
Scarlet fever	47
Whooping cough	276

(Continued on Page 47)

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(Continued from Page 45)

Diphtheria	107
Influenza	1,274
Dysentery	116
Poliomyelitis, acute	78
Encephalitis, lethargic	51
Meningococcus meningitis	102
Tuberculosis—lungs	4,057
Tuberculosis—other	371
Venereal diseases	885
Other general diseases (epidemic)	196
Cancer	8,670
Other general diseases	3,282
Diseases of the nervous system	6,563
Diseases of the circulatory system	24,598
Pneumonia	5,040
Other diseases—respiratory system	789
Diarrhea and enteritis—under two years	768
Diarrhea and enteritis—two years and over	159
Other diseases—digestive system	4,289
Nephritis	5,086
Other nonvenereal genito-urinary system	992
Puerperal state	392
Diseases of skin—cellular tissue	118
Diseases of bones, organs of locomotion	85
Congenital malformation	555
Diseases peculiar to early infancy	2,262
Senility	149
Suicide	1,803
Other external causes	6,982
Ill-defined and unknown	75

Deaths by Race.—Out of a total of 80,322 deaths in California last year, 71,295 were in members of the white race, 1,695 Negroes, 455 Indians, 545 Chinese, 620 Japanese, 5,257 Mexicans, 282 Filipinos, and 173 of other races.

The chief cause of death among Negroes was diseases of the heart and circulatory system. From this cause there were 391 deaths; tuberculosis, 186; external causes, 174; pneumonia, 147; nervous system, 137; cancer, 127; nephritis, 110.

Among Mexicans, tuberculosis was the chief cause of death—951 out of the total of 5,257 being due to this cause. Numbers of deaths among Mexicans due to other causes were as follows: pneumonia, 679; circulatory system, 553; external causes, 508; diarrhea and enteritis under two years of age, 435; diseases peculiar to early infancy, 399; cancer, 229; digestive system, 213; nervous system, 206; whooping cough, 134. It is apparent that tuberculosis, pneumonia and diseases of the respiratory system are most important causes of death among Mexicans—1,688 out of 5,257 deaths being due to these causes. Whooping cough is very high among Mexican children. Infant deaths are also exceptionally numerous among Mexicans, no less than 903 having been due to diarrhea and enteritis under two years of age, diseases of early infancy, and congenital malformation.

Among the Japanese, tuberculosis was the chief cause of death. Among the Chinese and Indians, diseases of the circulatory system were the chief causes of death. Among Filipinos, tuberculosis and pneumonia claimed most lives of these people.

Work Among Hard-of-Hearing Children.—Because of the large numbers of cases involving loss of hearing reported from rural schools and discovered as a result of audiometer tests, the Bureau of Child Hygiene of the California State Department of Public Health engaged the services of an otologist for two months of this year.

This specialist examined 912 children in eighteen counties of northern California. Among them, 1,961 defects, which may have been contributing causes for varying degrees of hearing losses, were discovered. More than half of the children examined showed hearing losses in one or both ears.

There were 736 defects involving upper respiratory infections, 512 diseased tonsils and adenoids, 567 cases of otitis media, and 101 cases in which foreign bodies (wax) were found in the ears. It was determined that 858, out of the 912 children examined, needed corrections of various

(Continued on Next Page)

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(Continued from Preceding Page)

defects. The largest number, 416, needed the removal of tonsils and adenoids, while only six suffered hearing loss sufficiently great to warrant recommendation for entrance to the state school for the deaf. Lip reading was recommended for 133 of these children.

The following indicates the number and sort of recommendation made to parents of these children:

Remove tonsils and adenoids	416
Watch tonsils	49
Treat chronic sinus	113
Lip reading	133
Remove wax	49
Treat chronic otitis media	55
Nasal operations	15
Refer to school for the deaf	6
Blood Wassermanns	22

It is only rarely that a child is better than his home influence. He may be smarter than his parents or more successful or more beautiful, but his moral strength and his habits of life and his intellectual leanings will largely be those that he inherited and that he acquired or developed in his home. Since we cannot make the world over in a day, there is our point of beginning.

Begin to think of your child as the descendant of a thousand generations that have made on it an indelible mark of tendencies, instincts, passions, ambitions, habits and abilities or disabilities. This link in the long chain of your heredity is in the forge and on the anvil of home environment. It can be molded, shaped, strengthened, or it can be left weak and full of flaws. Are you going to make a stronger link in the long chain or a weaker one?—"The Harvest of the Years," by Luther Burbank and Wilbur Hall.

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Iron as Fe	0.048
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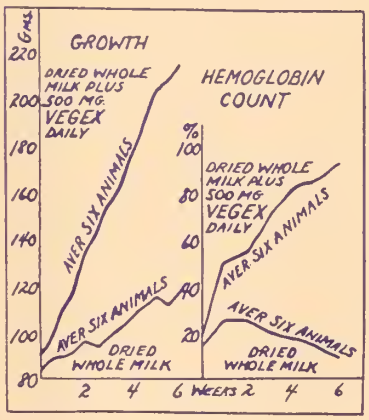
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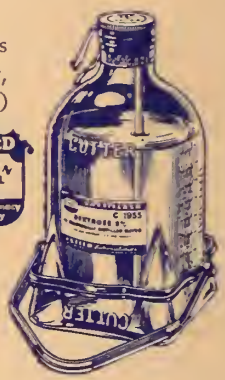
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FOREWORD

The American Medical Association, with its constituent state and county units, recognizes the need for the continued education of practitioners of medicine.

Postgraduate work comprises the continuation education of the practitioner of scientific medicine. It enables him to remain abreast of scientific progress and to apply in his daily practice the newer procedures with an understanding of their underlying principles and fundamentals.

The California Medical Association acknowledges and proposes to discharge its obligation to afford opportunities to its members to engage in continuing educational studies with a minimum of inconvenience, time, and expense. To that end, the educational opportunities listed in this prospectus have been developed and are being made available to members of the Association.

These conferences are not intended to prepare physicians for any specialty. The subjects presented will be dealt with in a practical, clinical manner, and not didactically. Clinical demonstrations will feature each presentation.

The conferences have been planned on a five-year program basis, and each year will disclose a varied arrangement of subjects. Policies, methods, attendance credits, reviews, and short intensive intramural courses in the medical colleges of this State will be announced from time to time in California and Western Medicine.

Clinicians will be selected from the staffs of all four California medical colleges and from the staffs of approved hospitals. In every instance the clinician will be one who has established a reputation as being a competent man in the subject assigned, and possesses the ability to conduct his clinic in true teaching atmosphere.

The committee trusts that members will recognize the great personal value that this program can have for every practicing member. It is hoped they will embrace these opportunities in their respective districts. Correspondence is invited.

Communications for the Committee on Postgraduate activities should be sent to the Central Office of the California Medical Association, addressed to the California Medical Association Committee on Postgraduate Activities, care of George H. Kress, Secretary, 450 Sutter Street, San Francisco, California.
October, 1938.

Committee on Postgraduate Activities:

John C. Ruddock, M. D., *Chairman*
F. E. Clough, M. D.
F. F. Gundrum, M. D.
George H. Kress, *Secretary.*

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CALIFORNIA MEDICAL ASSOCIATION

Excerpts from the Constitution

ARTICLE I.—NAME

Section 1.—Name

The name of this organization is the California Medical Association.

ARTICLE II.—PURPOSES AND GENERAL ORGANIZATION

Section 1.—Purposes

The purposes of this Association are to promote the science and art of medicine, the protection of public health, and the betterment of the medical profession; to promote similar interests of its component county societies; and to unite with similar organizations in other states and territories of the United States to form the American Medical Association.

Section 2.—Organization

This Association, as a state unit of the American Medical Association, and as the state expression of the component county societies of California, shall have three major divisions: one, the Association as a whole, as when it meets in general session; two, the Scientific Assembly and its subordinate or related bodies; and, three, the House of Delegates and its subordinate or related bodies.

* * *

EXCERPT FROM BY-LAWS: CHAPTER V.—COMMITTEES

Section 20.—Committee on Postgraduate Activities

The Committee on Postgraduate Activities, of which the secretary-treasurer shall be an ex-officio member, shall use its best efforts to promote the postgraduate and clinical courses and instruction among the component county units of the Association.

The supervision of such postgraduate and clinical courses and instruction shall be carried on through the central offices of the Association, the Council being empowered to defray travel expenses of guest speakers and other costs incident to such work to such amount as in the judgment of the Council may be deemed proper. In the development of such postgraduate and clinical courses and instruction, it is stipulated that the component county societies, through their constituted representatives, shall coöperate with the Standing Committee on Postgraduate Activities and shall also arrange to bear a proper proportion of the expense thereof of such amount as may be mutually agreed upon.

GENERAL INFORMATION

I. POSTGRADUATE CENTERS

The list below gives location of some suggested centers. Conferences may be held in designated cities as the registrants determine to be most desirable and convenient.

STOCKTON

San Joaquin, Stanislaus, Calaveras, Tuolumne.

FRESNO

Fresno, Merced, Tulare, Kings.

RIVERSIDE, SAN BERNARDINO

San Bernardino, Riverside, Orange.

SAN DIEGO

San Diego, Imperial.

SANTA BARBARA

Santa Barbara, San Luis Obispo, Ventura, Kern.

SAN JOSE

Santa Clara, Santa Cruz, Monterey, San Benito.

SANTA ROSA

Sonoma, Napa, Marin, Lake, Mendocino.

SACRAMENTO

Sacramento, Yolo-Colusa-Glenn, Yuba-Sutter, Placer.

NORTHERN CALIFORNIA

Because of extensive distances requiring extraordinary time in traveling on the part of clinicians, the committee contemplates forming teams of clinicians that will conduct a series of conferences in key centers in Northern California.

II. APPLICATION FOR SESSIONS

In applying for and conducting Postgraduate Conferences, the following rules and regulations must be complied with.

1. Each County Society will appoint a Postgraduate Committee. This Committee should be carefully selected and the Chairman should be appointed for a period of five years. Members of this Committee should be men who are interested in Postgraduate education and are willing to take an active part.

2. This Committee will meet and determine:

(*a*) Place for holding Conference.
(*b*) Number of Conferences to be held.
(*c*) Date and opening hour of each Conference.
(*d*) List of subjects desired for each Conference.

3. An application will be filled out with this information and sent to the Secretary of the California Medical Association not later than six weeks before proposed date of Conference. (This is necessary, so that conflicts of various Conferences shall not occur.)

4. Upon receipt of the application the Secretary will assign dates for conferences in conformance, as near as possible, with the wishes of the local committees. He will then submit to the local conference chairman a list of clinicians available for the courses selected. The Local Committee will immediately determine upon the name of the clinician and an alternate, and so notify the State Secretary.

The State Secretary will then invite the clinician and obtain from him the nature of the clinical material desired. Upon receipt of acceptance from the clinician, the Secretary will forward his name and other pertinent information to the Chairman of the Local Postgraduate Committee. The Local Chairman will then be responsible for all detail arrangements, and also responsible for making the clinical material available to the speaker, and will assume charge of the conference.

5. Program

(*a*) Ample predetermined time shall be allotted to the clinician for presentation of his subject.

(*b*) The program must be carried out as announced. There should be no change in time assigned to each clinician.

(*c*) There is to be no discussion. Questions may be asked. In small groups, round table discussions may be desirable.

(*d*) No "wet" clinics are permitted.

(*e*) Due announcement with a copy of the program of each conference shall be given to members of each district.

(*f*) In making up programs, the various aspects of single subjects or allied subjects are desired. Experience has proved that no more than three subjects tend to successful conferences. If more subjects are desired, additional meetings or conferences should be arranged.

III. POSTGRADUATE CONFERENCES: RECOMMENDATIONS TO CLINICIANS

These courses have been prepared and selected by the Committee on Postgraduate Activities, and clinicians must follow the outlined courses which have as their purpose the presentation of fundamental and underlying principles in each subject and their *practical* modern application.

1. It should be remembered that your audience is composed of *graduate* practicing physicians. Undergraduate phases of any subject should be eliminated, unless recent developments have established new, accepted principles and concepts.

2. The presentation shall be clinical and not didactic. Formal papers shall not be read.

3. Presentation of subjects shall be made by illustrations, lantern slides, specimens, and clinical cases whenever possible.

4. Clinic patients will be made available. Clinicians are urged to contact in advance the local committee and inform its members as to the type and number of patients desired, what history and laboratory findings are desired, and what other material will be required. Arrangements should be made to see patients *before* the time scheduled for presentation.

5. Practical application of diagnosis and treatment should be demonstrated on the patient or described by means of slides, drawings, apparatus, or outlines of therapy, diet, and care.

6. Whenever possible, conferences will be conducted in local hospitals, where clinical facilities will be made available.

7. Discussion of presentations will consist of questions and answers.

8. Avoid intricate theorization. If indicated, give reference to the literature for personal study of theory. Emphasis to underlying fundamentals and practical application should characterize each presentation.

9. Clinicians will be reimbursed for their travel and hotel expenses. Upon approval, they will be reimbursed upon submission of their expense account to the Secretary of the California Medical Association.

IV. CLINICAL INSTRUCTORS

The faculties of the University of California, Stanford, University of Southern California, and the College of Medical Evangelists will coöperate with the California Medical Association by making available members of the faculties for participation in and carrying on these conferences.

The Committee on Postgraduate Conferences will recommend upon request, at any time, members of the California Medical Association specially trained in the various subjects to be given at these conferences.

The California Tuberculosis Association, the California Heart Association and the Pneumonia Control Committee of the California Medical Association, upon request, will recommend members of their organizations for talks and presentations of subjects in tuberculosis and heart disease.

LIST OF COURSES

The courses as listed below have been grouped under separate headings. It is not the purpose to survey the complete field of medicine. The Committee feels that the courses as listed below will offer to the medical profession those things that are most valuable at this time.

* * *

I. GENERAL MEDICINE

1. Nephritis

This course will deal with the etiological factors, classification, differential diagnosis, evaluation of laboratory procedures, and treatment. Prognosis and complications. Presented through case histories, demonstrations of patients, charts, and lantern slides.

2. Fevers

The fevers that continue often create problems of diagnosis that are serious from both the standpoint of the clinician and the patient. This course will consist of classification and types of fevers with methods of differential diagnosis. The discussion to be followed by a Round Table discussion of local case histories.

3. Focal Infection

The relationship of focal infection to general disease.

(*a*) Teeth
(*b*) Sinuses
(*c*) Tonsils
(*d*) Prostate
(*e*) Chronic pelvic inflammatory.
(*f*) Pyelocystitis.
(*g*) Gall bladder.
(*h*) Bronchiectasis.
(*i*) Appendicitis.
(*j*) Cryptitis.

4. Blood Dyscrasias

General classification with etiological factors. Demonstration of patients. Demonstration of blood smears by means of lantern slides and microscopy.

(*a*) Anemias.
(*b*) Leukemias.
(*c*) Agranulocytosis.

5. Dysentery

Newer conception of causes of food poisoning, with discussion of keeping foods, home canning, mushroom poisoning, mussel and shellfish poisoning, botulism, amebic dysentery, bacillary dysentery, fat metabolism. Demonstration by patients, case histories, slides and charts.

6. Alcoholism

Discussion of etiological factors, application of etiological factors to individual case in determining choice of treatment. Treatment of alcoholics. Complications and how treated. How to determine an alcoholic.

7. Contagious Diseases

A general discussion on quarantine and methods of control with differential diagnosis and treatment of

1. Diphtheria.
2. Spinal meningitis.
3. Poliomyelitis.
4. Rabies.
5. Smallpox.
6. Scarlet fever.
7. Septic sore throat.
8. Whooping cough.
9. Measles, mumps, and chickenpox.
10. Typhoid.

8. Animal-borne Diseases

A general discussion on etiological factors, methods of control, differential diagnosis and treatment of

1. Undulant fever and tularemia.
2. Rocky Mountain spotted fever and relapsing fever.
3. Typhus fever.
4. Bubonic plague.
5. Malaria.

9. Supplementary Subject

Special courses will be arranged whenever possible upon written request of local arrangement committees.

* * *

II. THE MANAGEMENT OF THE PNEUMONIAS

Each and every conference during the season 1938-1939 shall devote a portion of its time to the subject of pneumonia by selecting any one of the following topics as listed below. A selection of Course 10 of six courses will include all of the six subtopics.

The average total yearly deaths from pneumonia in the State of California reaches over 4,000.

It is believed that, with the proper methods of diagnosis and treatment now available, this mortality can be materially reduced.

10. Pneumonia

The courses in pneumonia will cover the following aspects of the management of the pneumonias:

(*a*) Clinical aspects and diagnosis.

(*b*) Specific typing with demonstrations and moving-picture films showing technique.

(*c*) General management with special consideration of pathological physiology. Indications for and technique of oxygen therapy, salt and other therapeutic adjuncts.

(*d*) Specific serum therapy, with demonstrations and moving-picture films showing technique.

(*e*) Pneumonia complications in surgery, obstetrics, and other conditions.

(*f*) Prognosis as to types, time of giving serum and blood cultures.

III. HEART DISEASE

The courses on heart disease are arranged and given with the coöperation of the California Heart Association, which has made available to the Committee on Postgraduate Activities moving picture films, lantern slides, and statistics, as well as participation in their established program of consultative clinics on cardiac diagnosis.

11. A Heart Clinic

A talking motion picture in color. Heart sounds synchronized with animated valves of the pathological specimens of the cases cited. Offered by the California Heart Association.

12. Electrocardiography Simplified

A motion picture showing animated drawings of the course of the impulse through the bundle of His coördinated with the electrocardiogram and its interpretation. Offered by the California Heart Association.

13. Cardiac Silhouettes

Demonstration of x-ray films of various types of cardiovascular disease with interpretation of films.

14. Rheumatic Heart Disease

A demonstration by pathological material illustrating typical heart lesions, with presention of cases.

15. Syphilitic Heart Disease

A demonstration of specimens showing lesions of the circulatory system due to syphilis. Case presentation, treatment, and prognosis.

16. Subacute Bacterial Endocarditis

Demonstration of specimens. Case presentation, etiology, course, treatment, and prognosis.

17. Hypertension

Clinical discussion with presentation of cases.

18. Arteriosclerosis

Case presentation.

19. Coronary Artery Disease

Case presentations of illustrative cases of "angina pectoris," and coronary thrombosis. Demonstration and electrocardiograms of pathological specimens.

20. The Cardiac Irregularities

Case demonstration of the more common types of cardiac irregularities, with short discussion of etiology, prognosis, and treatment.

21. Embolism Complicating Heart Disease

Etiology, diagnosis, and treatment. Indications for, and technique of, embolectomy will be discussed.

22. Peripheral Vascular Disease

This course will deal with both venous and arterial disease of the extremeties:

(*a*) Gangrene.
(*b*) Buerger's disease.
(*c*) Raymond's disease.
(*d*) Erythromelalgia.
(*e*) Arteriovenous aneurysm.
(*f*) Embolism.
(*g*) Phlebitis.
(*h*) Varices.

23. Congestive Heart Failure

Demonstration of cases showing various stages of congestive failure.

Discussion of treatment by rest, digitalis, and diet. Convalescent care.

24. Vitamins and the Heart

25. Congenital Heart Disease

A short discussion with lantern slide demonstration of cases. Prognosis of various lesions. (Presentation of cases when available.)

* * *

IV. DISEASES OF THE CHEST

Diseases of the chest will be presented in eight periods by demonstration and graphic methods.

26. Epidemiology, Etiology, and Public Health Aspects

One of the outstanding accomplishments of the present century in medicine is the yielding of tuberculosis to the measures which are being directed toward its prevention and care, and the differential diagnosis of other chest diseases. The first period will demonstrate the epidemiology, the etiology, and the public health and sociological factors of pulmonary diseases. (Lecture.)

Note: The courses on diseases of the chest are offered with the assistance of the California Tuberculosis Association. This Association has for a number of years held postgraduate clinics in conjunction with county medical societies on the diagnosis and treatment of tuberculosis. These clinics are now offered and are made available to the Committee on Postgraduate Activities.

27. Classification of Pulmonary Tuberculosis

The response of the body to an invasion of the tubercle bacillus for the first time is the formation of a lesion at the site of infection and in the regional lymph nodes. A first infection lesion within a month or two is followed by altered tissue reactions. Pathology will be demonstrated; childhood type and exudative, productive and chronic ulcerative adult types of the disease will be depicted by x-ray films.

28. Diagnosis of Pulmonary Tuberculosis

Careful study and accurate systematic physical examination of patients will be demonstrated.

Illustrated and demonstrated will be history, symptoms and clinical manifestations, physical signs, x-ray evidence, tuberculin test, laboratory tests, exclusion of other causes.

See Course No. 27.

29. Medical Treatment of Pulmonary Tuberculosis

Pathologic evidence of healing of lesions will be presented, criteria of selective treatment will be demonstrated, and procedure illustrated, such as rest, diet, fresh air, sunshine, drug therapy, mechanical devices, and individual study of the patient.

See Course No. 27.

30. Nontuberculous Diseases of the Lungs

So common a disease as pulmonary tuberculosis is apt to be confused with other diseases of the chest. Differential diagnosis will be demonstrated and classified as follows: Asthma and allergic disorders; bronchopneumonia: bronchiectasis, lung abscess, pleurisies, lung and mediastinal tumors, Hodgkin's disease, pulmonary infarcts, bronchitis, aortic aneurysm, pulmonary syphilis, fungus infections, bronchial stenosis, foreign bodies, and emphysema.

31. Surgical Treatment of Pulmonary Disease

Selective methods of surgical treatment will be demonstrated and the following procedures illustrated or demonstrated: phrenicotomy, artificial pneumothorax, pneumoperitoneum, thoracoplasty, extrapleural and intrapleural pneumolysis, drainage of the lung and pleura, and lobectomy.

* * *

V. LESIONS OF THE ABDOMEN

Courses offered in this subject to cover methods of diagnosis, special tests, methods of treatment, both medical and surgical. The courses will be presented through case histories, bedside clinics, demonstration of patients, lantern slides, and presentation of pathological material.

32. Intestinal Obstruction

This course will deal with the etiological factors of intestinal obstruction. Brief case history reports of cases, demonstrating the various etiological factors. Surgery of acute and chronic cases with the preoperative and postoperative case. Complications and how avoidable.

33. Perforations

This course will deal with the various types and causes of perforations occurring in the gastrointestinal tract. The diagnosis and treatment of acute perforations of esophagus, stomach, duodenum, small intestines, and colon. When to operate. Mortality statistics. Complications. Presented by case histories and lantern-slide demonstrations.

34. Appendicitis

Differential diagnosis with mistakes encountered. What is chronic appendicitis? How diagnosed? Value of laboratory work. Sedimentation rate and Schilling counts. Roentgen diagnosis. Surgery with indications pro and con. Presented by demonstration of patients with case histories.

35. Acute Cholecystitis

Differential diagnosis with evaluation of laboratory methods and procedures. The gangrenous gall bladder. Empyema of gall bladder. Rupture—cholelithiasis with acute attacks—acute inflammation. Medical management and surgical indications and procedures.

This course to be presented by case demonstration.

36. Acute Pancreatitis

Methods of differential diagnosis, with indications for surgical interference and operative procedures. Causes. Complications.

Presented by case histories.

37. Visceral Rupture

Relation of visceral rupture to industrial injury. Traumatic rupture of bowel, liver, spleen, kidney, and bladder. Methods of diagnosis. Relation to skull injuries. Procedures to institute.

Presented by case histories.

38. Peritonitis

Various types of inflammatory lesions of peritoneal cavity. Colon, streptococcus, staphylococcus, and tuberculosis. Methods of culture and vaccine treatment. Ileus. Spider bite. Surgical judgment.

Presented by case demonstration and histories.

39. Tumors of the Abdominal Cavity

Diagnosis, with relation to size, mobility, consistency, pain, fever, etc. Presentation of cases with discussion of differential diagnosis and treatment.

40. Colitis

Presentations of cases with discussion, demonstrating:

(*a*) The spastic colon.
(*b*) Ulcerative colitis.
(*c*) Amebic dysentery.
(*d*) Enterocolitis, acute and chronic.

The management of the cases, with treatment and diet, will be brought out in the discussion of the cases.

41. Ascites

A demonstration of cases with ascites and lantern-slide demonstration of types. Laboratory methods of differentiation of causes of ascites. Methods of tapping. Drug therapy. Surgery.

42. Cirrhosis of Liver

Case demonstration, with presentation of pathological material showing different types. Atrophic, hypertrophic, biliary, acute atrophy, and hepar lobatum. Treatment.

43. Peptic Ulcers

This course to consider gastric and duodenal ulcers. Demonstration of cases, case histories with differential diagnosis as shown by roentgen plates, gastric analysis, etc. Medical regimen and surgical treatment.

44. Malignancy

Consideration of malignant lesions of the stomach. Statistics by lantern-slide presentation. Demonstration of cases and case histories. Treatment: palliative and surgical; exploratory surgery.

45. Malignancy of Colon

Newer methods of surgical treatment of malignancies of cecum, colon, sigmoid, and rectum. Radiation therapy.

46. Hemorrhage

Demonstration by cases and case history of various types of abdominal hemorrhage.

(*a*) Esophageal hemorrhage.
(*b*) Gastric hemorrhage.
(*c*) Duodenal and small bowel bleeding.
(*d*) Large bowel bleeding.
(*e*) Rectal bleeding.
(*f*) Intraperitoneal hemorrhage.

Symptomatology, differential diagnosis, treatment.

* * *

VI. SURGERY

It is not the purpose of these courses to perfect individuals in the technique of specialized surgical procedures, as these can be acquired only by intensive training at certain medical centers. Explanations and discussions with regard to what can be accomplished, differential diagnosis, methods of choice and judgment are primary considerations.

47. Infections

A discussion of principles, treatment and complications of infection.

(*a*) Carbuncles and boils.
(*b*) Infected sebaceous cysts.
(*c*) Lymphangitis.
(*d*) Cold abscess.
(*e*) Thrombophlebitis.
(*f*) Face and head infections.
(*g*) Ludwig's angina.

48. Hand Injuries and Infections

(*a*) Industrial traumatic injuries.
 1. Cuts and bruises.
 2. Fractures.
 3. Meat and fish infections.
 4. Thorns.
 5. Felons and paronychia.
 6. Phlegmons.
(*b*) Deformities.
(*c*) Amputations.
(*d*) Sprains.
(*e*) Tendon and nerve injuries.

49. Goiter

Presentation of patients, demonstrating the different types, with clinical manifestations.

A discussion of etiological factors involved in the various types.

Treatment both medical and surgical.

50. Tumors of the Breast

Classification, types, differential diagnosis. Methods of treatment.

51. Supplementary Subject

Special courses will be arranged on surgical subjects to meet the requests of various groups. It is understood that technical descriptions of specialized procedures are not subjects of general interest.

* * *

VII. OCCUPATIONAL AND INDUSTRIAL DISEASES

52. Relationship of Disease to Employment

This course will be a discussion of the problem of determining the relation of disease to occupation, with legal aspect and employer's liability. Citation of cases. Round Table discussion of local problems and cases.

53. Silicosis

Effect of inhalation of foreign materials such as carbon, cement dust, marble, quartz, asbestos, sand, and various kinds of dust. What disability results?

General discussion of subject.

54. Fumes

Effect of inhalation of various kinds of fumes on the body—carbon monoxide, ethylene, lead, cyanide, pyrethrum, illuminating gas. Does permanent disability result? General discussion of subject.

55. Electric Shock, Drowning, and Sunstroke

General Round Table discussion, with demonstration of resuscitation methods.

56. Burns

The treatment of burns and discussion of subject—sunburn, acid and drug burns, explosions, searing burns, scalds. How to prevent disfigurement and contractures?

57. Trauma and Tumors

Discussion of causative relationship of trauma to tumors. Experimental studies.

(*a*) Benign.
(*b*) Malignant.

Citation of case reports.

VIII. GYNECOLOGY*

58. Menstrual Disorders

Classification.

Anatomical, physiological, and endocrinological factors.

Points in differentiation.

Treatment—dietetic, therapeutic—glandular extracts and substances, and fallacies in physiotherapy and surgical interference by curettage, suspension.

59. Pelvic Infections

Nonspecific.
Specific.

60. Cancer—Cervix and Uterine

This session will be devoted to a thorough presentation of the subject, with emphasis upon methods of early diagnosis and treatment, and use of radium with x-ray.

61. Benign Lesions and Uterine Tumors

Endocervicitis and lacerations.
Polypi.
Ovarian cysts.
Trichomonas.
Malpositions—procidentia.
Indications and limitations of office treatment.

* * *

IX. OBSTETRICS†

62. Operative Obstetrics

Physical indications—mother, child. (X-ray and measurements of birth canal.)

Position.

Version—high and low forceps.

Episiotomy—lacerations—cervical and perineal.

Illustrative cases.

Surgical technique.

Accidents and complicating emergencies.

63. Toxemias of Pregnancy

Prenatal supervision.

Eclampsia—prodromal symptoms and therapeutic treatment.

Eclamptic seizure. Management and indications for termination of pregnancy by induction or section—precautions and technique.

Pneumonia and acute infections during pregnancy. Treatment of the disease and management of complicating abortion or premature labor.

Acute surgical conditions in the abdomen complicating pregnancy.

(*a*) Appendicitis.
(*b*) Obstruction.
(*c*) Acute cholecystitis.
(*d*) Perforations.
(*e*) Trauma.

Management—Surgical technique.

64. Management of Obstetrical Emergencies

Placenta praevia—diagnosis; control of bleeding; manual or section delivery.

Placental separation; diagnosis; treatment technique.

Uterine rupture—etiology; surgical treatment.

Precipitate delivery and third-degree laceration. Technique of repair. Demonstration of operative procedures.

65. Postpuerperal Complications

Septicemia.

Sinus thrombosis.

Pelvic varicosities.

Vesical fistula.

Phlebitis.

Mastitis.

Presentation will include etiology, prophylactic measures, diagnosis, and treatment, illustrated by case histories and pathological specimens, and bacteriological findings.

* * *

X. DISORDERS OF NUTRITION, METABOLISM AND GLANDS OF INTERNAL SECRETION

66. Dietary Deficiency

Etiology, symptoms, signs and treatment of deficiency disease, such as pellagra, beriberi, peripheral neuritis, scurvy, and multiple deficiency, primary and secondary.

67. Obesity

Etiology and treatment.

68. Undernutrition

Etiology and treatment.

69. Gout

Differential diagnosis and management.

70. Disturbances of Carbohydrate Metabolism other than Diabetes Mellitus, such as:

(*a*) Spontaneous hypoglycemia or hyperinsulinism.

(*b*) Nondiabetic "glycosurias."

(*c*) Glycogen storage (von Gierke's) disease.

Differential diagnosis and treatment.

71. Diabetes Mellitus

(*a*) Uncomplicated juvenile and adult types. Management by diet and various types of insulin.

(*b*) Complicated. Management during complications such as acute infections, surgery, pregnancy, etc.

(*c*) Diabetes and cardiovascular disease. Relationship and management.

72. Endocrine Problems

Differential diagnosis and treatment of disorders of the pituitary, thyroid, parathyroid, adrenal and genital glands.

* See also Obstetrics IX, Topics 62-65.

† See also Gynecology VIII, Topics 58-61.

73. Disturbances of Acid-Base Balance

Etiology, differential diagnosis and treatment.

No set papers nor lectures are to be given on any of the above topics. Each subject is to be developed following the presentation of one or more patients from the local community, who have had adequate study and who exhibit problems falling within one of the above subdivisions.

Charts, graphs, lantern slides, etc., may be used if applicable to the specific problems presented.

* * *

XI. ALLERGY

74. Discussion and Illustration of Accepted Principles Governing the Allergic Theory

Commoner allergic conditions and general principles governing examination, with illustration of reactions and their etiology.

Symptomatology, diagnosis.

(*a*) Diet.

(*b*) Tests.

75. Involved Allergic Reactions

Asthma.

Headaches.

Gastro-intestinal.

Nasal—pharyngeal (hay fever?).

Allergy in infants.

These will be discussed in the light of present knowledge, with emphasis upon differential diagnosis, reaction tests, diet, and antigen treatment. Illustrative cases will be presented.

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XII. PEDIATRICS

76. The New-Born: Full Term; Premature

Immediate care.

Common disorders during neonatal period.

General management.

Artificial feeding.

Breast feeding.

Motion pictures, showing handling of the infant, preparation of food, etc., will be exhibited.

77. Infant Care

Besides hygiene and diet, growth and development will be carefully detailed. Lantern slides and motion pictures.

78. The Preschool Age Child

Hygiene (physical, mental).

Diet.

Common defects and their correction.

The fat child.

The thin child.

79. Infantile Eczema

Various types will be discussed and classified, with suggested treatment. Lantern slides.

80. Rickets and Scurvy

Historical review.
Changing concepts.
Criteria for diagnosis.
Course if untreated.
Prevention and treatment.
X-ray plates, lantern slides, motion pictures.

81. Pyelitis in Infancy and Childhood

Case histories will be presented.
Laboratory work necessary for diagnosis will be demonstrated.
Recent advances in therapy.
Surgical aspects.

82. Abdominal Pain in Children

A résumé of the subject is offered.
Differential diagnosis is stressed.
Medical conditions.
Surgical conditions.
(Patients will be shown, if available.)

83. Otitis Media

Seasonal variation.
Diagnosis (infants, older children).
Indications for paracentesis.
Complications.
Treatment (palliative, surgical).
Lantern slides. Proper use of the otoscope will be demonstrated.

84. The Juvenile Diabetic

The problem of management.
Diabetic coma.
Insulin shock.
Protamin insulin.
Case histories and lantern slides.

85. Active and Passive Immunization

Smallpox.
Diphtheria.
Measles.
Whooping cough.
Scarlet fever.
Poliomyelitis.
Tetanus.
Common colds.
Poison Oak and Ivy.
Miscellaneous.

86. Skin Tests in Common Use

The various skin tests for tuberculosis.
The Schick test.
The Dick test.
Complement-fixation tests.
Allergy test.

Value of the various tests will be discussed, technique demonstrated, and reactions explained.

87. Sera, Vaccines, Vitamins

A summary of important experiences with commonly used sera and vaccines is offered. Contraindications and dangers are discussed and beneficial effects evaluated. Our present knowledge of vitamins is summarized, its uses and abuses pointed out.

88. Endocrinology in Children

What do we know for sure?

Hypothyroid and hyperthyroid and pituitary disturbances, are carefully presented with lantern slides.

Other endocrine disorders discussed.

The value of endocrine products carefully estimated.

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XIII. OPHTHALMOLOGY

89. Courses will include any of the following as requested:

(*a*) Medical ophthalmology, fundus examination, tumors, etc.

(*b*) Ocular therapeutics, foreign bodies, first aid and extent to which general practitioner should limit his care.

(*c*) Muscles, squint, crossed eyes, with films.

(*d*) Conjunctivitis and external diseases and lacrymal apparatus.

(*e*) Defective vision, contact glasses, refraction.

(*f*) Cataract and glaucoma.

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XIV. OTOLARYNGOLOGY

90. Courses will include any of the following as requested

(*a*) Focal infection.

(*b*) Ear, nose and throat problems in relation to contagious diseases.

(*c*) Foreign bodies in the respiratory and upper digestive tracts.

(*d*) Ear symptoms in relation to head injuries.

(*e*) A practical application of histopathology to diseases of ear, nose and throat.

(*f*) Acute otitis media, mastoiditis.

(*g*) Surgical repair in facial paralysis.

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XV. ORTHOPEDICS

91. Back Pain

This course includes a general discussion of causes and types of back pain. Demonstration of patients. Relationship to industrial injury and liability following automobile accidents. Many factors will be brought out in the discussion such as:

(*a*) Posture.

(*b*) Arthritis.

(*c*) Nerve diseases.

(*d*) Congenital deformities.

(*e*) Back strain.

(*f*) Infection.

92. Fractures

The treatment and handling of fractures is a large subject and should be divided into various headings, any one of which is sufficient to be the topic for a conference.

(*a*) Fractures of vertebrae with and without cord lesion.

(*b*) Fractures of upper extremity.

1. Clavicle.
2. Scapula.
3. Humerus.
4. Radius and ulna.
5. Hand.
6. Ribs.

(*c*) Fractures of lower extremity.

1. Pelvis.
2. Hip.
3. Femur.
4. Patella.
5. Tibia and fibula.
6. Foot.

(*d*) Fractures of head.

1. Skull.
2. Face.
3. Jaws.

93. Osteomyelitis

A discussion of etiological factors involved and types of infection of bones. Differential diagnosis. Methods of treatment. Demonstration by means of x-ray films and patients, when available.

94. Congenital Deformities

Various congenital bony deformities demonstrated by photos, lantern slides, x-rays and patients, when available. How treated?

95. Poliomyelitis

Treatment of disease in acute stage. Convalescent stage and corrective measures, including muscle training methods, etc., in overcoming the deformities of the disease.

96. Corrective Physiotherapy and Appliances

Demonstration of various types of massage with physical agents, such as heat, light, etc.

Demonstration of various appliances for corrections of deformities, such as:

(*a*) Flat feet.

(*b*) Curvatures of the spine.

(*c*) Nonunion of fractures.

(*d*) Artificial limbs.

Demonstration and discussion of corrective school measures, to correct:

(*a*) Round shoulders.

(*b*) Flat chest.

(*c*) Poor muscular development.

97. Arthritis

Classification of types with demonstration of patients and x-ray plates. Different methods of treating. This will include all types, acute and chronic.

98. Bone Diseases

A demonstration, with lantern slides and x-ray plates, of bone diseases and tumors.

XVI. DERMATOLOGY

99. Eczema and Contact Dermatitis

Differentiation between contact and atopic types of dermatitis. The situation of eczema in the allergic individual. Methods of testing for contact and atopic eczema. Eczematoid reactions to infectious agents, such as infectious eczematoid dermatitis, bacterids and dermatophytids.

100. Pyogenic Infections of the Skin

Diagnosis and treatment of impetigo, ichthyma, furunculosis, carbuncle, erysipelas, sycosis vulgaris. Demonstration of patients.

101. Fungus Infections of the Skin

Diagnosis and treatment of tinea corporis, tinea capitas, dermatophytosis, superficial yeast infections. Demonstration of patients.

102. Parasitic Infections

Diagnosis and treatment of scabies. Pediculosis and insect bites. Demonstration of patients.

103. Seborrheic Affections of the Skin

General discussion of the so-called seborrheic type and the discussion of seborrheic dermatitis. Differentiation from other localized affections, such as lupus erythematosus and psoriasis, and to more extensive types resembling eczema.

Acne vulgaris; its placement as a seborrheic affection. Factors in its production and treatment.

104. Infectious Granulomas

(*a*) Tuberculosis of the skin. Discussion of types. Scrofuloderma. Tuberculosis verrucosis cutis. Lupus vulgaris and tuberculides.

(*b*) Blastomycosis. Lantern slide demonstrations.

(*c*) Sporotrichosis. Lantern slide demonstrations.

(*d*) Coccidioides, and leprosy. Lantern slide demonstrations.

105. Infectious Granulomas, continued

(*e*) Syphilis. Discussion of the type of cutaneous lesions in early and late syphilis, and general discussion of the pathogenesis of the disease. Treatment of syphilis with especial emphasis on the treatment of early syphilis. Complications of treatment.

106. Multiform Erythema and Toxic Eruptions

Description of types of lesions of the skin in this class of eruptions in general, and the specific discussion of urticaria, erythema multiforms, and drug eruptions.

107. A Group of the Important Dermatoses, Whose Cause is not Definitely Established

Description of lesions with differential diagnosis and treatment. Lantern slides and patients when available.

(*a*) Lupus Erythematosus.

(*b*) Psoriasis.

(*c*) Lichen Planus.

(*d*) Pityriasis Rosea.

(*e*) Herpes Zoster and Simplex.

108. New Growths

(*a*) Benign growths. Types of Nevi. Angiomas. Pigmented moles. Pyogenic Granuloma.

(*b*) Warts in common locations and treatment.

109. Malignant Growths

Epitheliomas. Basal celled and squamous celled. Discussion of senile changes in the skin. Pre-epitheliomatous lesions. Malignant pigmented growths.

110. Skin Manifestations of Systemic Disease

Lantern Slides.

(*a*) Lymphoblastoma.
1. Hodgkin's disease.
2. Leukemia.

(*b*) Avitaminoses.
1. Scurvy.
2. Pellagra.

(*c*) Diseases of Endocrine System.
1. Thyroid.
2. Parathyroid.
3. Suprarenal.

(*d*) Pernicious Anemia.

111. Pruritus

Essential, Etiology; nervous, toxic, systemic disease, senile.

Symptomatic skin disease characterized by eczema, lichen planus, dermatitis herpetiformis, neurodermatitis.

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XVII. GENITO-URINARY AND VENEREAL INFECTIONS

112. General Discussion of Pathology of Urinary Tract.

The significance of hematuria, pain, temperature, and the need for complete examination in all cases of urologic disease will be considered.

113. Pathology of the Kidney and Ureter.

Special attention will be given to calculi, tumors, and infections.

114. Pathology of the Bladder.

Bladder-neck obstructions, calculi, tumors, and diverticula will be discussed.

115. A Discussion of the Infections Encountered in Urologic Practice.

This includes parenchymal infections, pyelitis, cystitis, and specific conditions. An evaluation of the newer urinary tract antiseptics will be given.

XVIII. PROCTOLOGY

116. Practical Points in Conducting Examinations

Positions, examining instruments, preparation of patients, what to look for. Types of lesions and characterization. Biopsies and laboratory aids.

The reasons for complete examinations. The necessity for making examinations in several positions. Technique will be described, illustrated, and demonstrated.

117. Treatment

Fissures, hemorrhoids, prolapse, proctitis, pruritus, rectal cysts, infections.

Accepted treatment will be described and demonstrated. Forms of medication will be presented, and valueless measures and remedies will be discussed. Office and hospital, surgical and nonsurgical treatment, and the type of anesthesia will be outlined and merits evaluated.

118. Cancer and Benign Lesions

Precancerous lesions, polypi and proctitis will be considered. Histopathology and diagnostic characteristics will be demonstrated. Treatment and care will be fully discussed and outlined.

119. Congenital Abnormalities

These will be illustrated and corrective measures outlined.

120. Syphilitic and Other Rectal and Perirectal Infections

Syphilitic lesions will be presented. Abscess, fistula, and cryptitis, and their treatment, will be thoroughly reviewed and practical methods demonstrated.

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XIX. DISEASES OF CENTRAL NERVOUS SYSTEM

121. Characterized by Somatic Symptoms.

This course will be presented through patients showing various lesions of the Central Nervous System.

(*a*) Noninflammatory.

1. Vascular.
 Patients will be demonstrated when available, to show thrombosis, hemorrhage, aneurism, and sclerosis, with the characteristic nerve lesions.
2. Neoplasms.
 Various types of growths involving both brain and cord. Patients will be shown when available. Diagnostic localization of tumors will be demonstrated.
3. Other noninflammatory diseases.
 Whenever possible patients will be shown and there will be discussion of various lesions, such as:
 Multiple sclerosis.
 Atrophies.
 Palsies.
 Epilepsies.

(*b*) Inflammatory Diseases.

1. The Meningitides.
 Discussion of etiology with especial reference to local infections and injuries about the head. Types given with aid of charts, case reports, lantern slides.
2. Parenchymatous Inflammation.
 Discussion of types and kinds. Case reports, including discussion of encephalitis, myelitis, gumma, abscess and various granulomatas, will be taken up.

122. Characterized by Mental or Emotional Derangement

(*a*) Psychoses.
Discussion of definition, with demonstration of differential diagnosis between various types of mental derangement.

(*b*) Psychoneuroses.
The effect of disorders of the involuntary nervous system on the functions of various internal organs. Methods of diagnosis and treatment. How do psychoneuroses develop? Compensation Neurosis.

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XX. LABORATORY EQUIPMENT AND TECHNIQUE

123. Essential Equipment for an Office Laboratory

Specifications and necessary equipment will be outlined and demonstrated. Practical use will be shown. Technician aid described.

124. Laboratory Examinations

Blood, metabolism, cultures. Technique, interpretation and pitfalls will be pointed out and demonstrated.

125. Micropathology

Obtaining specimens.
Fixing of specimens (rapid).
Stains.
Microscopes.
Confirmation.
Records and files.

This session will be devoted to practical discussions and technique of pathological diagnostic methods that can be conducted in a practitioner's office.

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XXI. SUPPLEMENTARY COURSE

126. Legal Medicine

This course will be an invitation discussion by members of the Bar Association of the State of California, taking up phases of the following subjects:

1. The doctor on the witness stand.
2. Privileged communications.
3. Leases and estates.
4. Malpractice.
5. Fees and collections.

The New York Academy of Medicine

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